2012 Calaveras County Regional Transportation Plan
Final Report

Submitted on October 3, 2012 by:

FEHR PEERS

CALAVERAS COUNTY

CALAVERAS COUNCIL of GOVERNMENTS

ANGELS CAMP CALIFORNIA

ACKNOWLEDGEMENTS

CCOG MISSION

The Calaveras Council of Governments is the regional planning agency which coordinates with its partners and communities to optimize the existing and future transportation systems.

CALAVERAS COUNCIL of GOVERNMENTS

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EXECUTIVE SUMMARY

INTRODUCTION

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 2012 Regional Transportation Plan (RTP) will guide transportation investments in Calaveras County over the next 25 years (2010 – 2035). The development of the RTP is a cooperative effort between the CCOG, County of Calaveras, City of Angels, Caltrans, and residents of Calaveras County. The RTP includes policies and guidelines for use of federal, state, and local funding.

The CCOG is composed of seven members - two County Supervisors, two Council Members from the City of Angels, and three members selected from the public at large. The CCOG promotes a dynamic view of planning within the County by supporting its member agencies in the delivery of a variety of planning projects and programs.

Consistent with the 2010 RTP Guidelines, the RTP includes policy which considers the land use-transportation connection and zoning requirements, is consistent with the Regional Transportation Improvement Program (RTIP) and the Interregional Transportation Improvement Program (ITIP), and includes involvement and outreach to the general public as well as the Native Tribal Governments within the County. A separate set of public involvement procedures are included as Appendix 1A of the RTP document.

The Policy Element, Chapter 3, includes the addition of specific policies, objectives, and feasible solutions that are linked to program level performance measures in the Action Element, Chapter 4.

The Action Element includes programmed and recommended transportation improvements for the following modes:

- Roadways;
- Public Transit;
- Goods Movement;
- Bicycle and Pedestrian;
- Aviation; and
- Transportation System Management (including TSM, TDM, and ITS).

CONSISTENCY REQUIREMENTS

The 2012 RTP demonstrates close ties to the Regional Transportation Improvement Program (RTIP), the Interregional Transportation Improvement Program (ITIP), the Overall Work Program (OWP), Calaveras County General Plan and the City of Angels General Plan, the Federal Transportation Improvement Program (FTIP), the California Transportation Plan (CTP) and Interregional Blueprint, and the California Strategic Highway Safety Plan (SHSP, and the California Wildlife Plan.

The RTIP is a five year program of projects prepared by the CCOG, County, and City of Angels. The RTIP is based on the RTP and a regional wide assessment of transportation needs and deficiencies. The ITIP is a five year list of projects that is prepared by Caltrans, in consultation with Regional Transportation Planning Agencies (RTPAs). Projects included in the ITIP and RTIP must be consistent with the RTP for Calaveras County. The OWP lists the transportation planning studies and tasks to be carried out by the CCOG during the current fiscal year.

REGIONAL SETTING

Calaveras County is located within the foothills of the Sierra Nevada mountain range approximately 133 miles east of San Francisco and 85 miles southeast of Sacramento. The County was incorporated in 1850. The County is bordered by Alpine County to the east, Amador County to the north, Tuolumne County to the south, and Stanislaus and San Joaquin Counties to the west (see Figure 1.1). The County seat is located in San Andreas. The county is rural with a dispersed population and a population density of approximately 44 persons per square mile (0.6 persons per acre).

POPULATION

Population is a key factor influencing future growth trends for housing, employment, transit, and transportation infrastructure. In January 2012, the California Department of Finance (DOF) reported the County population at 44,642 – a 9.8 percent increase over 2000 (40,658). This represents an annual average 0.8 percent per year growth rate since 2000. Table E.1 shows the one year distribution of population between the County and the City of Angels between January 2011 and January 2012. During this one year period population declined in the City of Angels and the County as a whole. The sluggish economy continues to impact population growth in the region.

TABLE E.1 TOTAL POPULATION DISTRIBUTION

	Total Population		Percent
	Jan 2011	Jan 2012	Change
Calaveras	45,092	44,840	-0.6
City of Angels	3,792	3,752	-1.1
Balance of County	41,300	41,088	-0.5

Source: DOF E-1 City/County Population 2012

EMPLOYMENT

The California State Employment Development Department (EDD) produces employment data, from survey information, on the number of individuals living and working in the County during a given year. The latest information for Calaveras County reports the number of employed persons was 16,780 in March 2012. Table E.2 provides a 3 1/2 year summary of the total labor force, number employed, the number unemployed and the unemployment rate for the County since 2008. The data shows a steady decline in employment and a rise in the unemployment rate since the economic downturn beginning in 2008. Between August 2011 and March 2012 unemployment fell from a rate of 16.4 percent to 14.8 percent. The EDD data will be monitored in five-year periods in order to incorporate the latest trends into future RTP updates.

TABLE E.2
CALAVERAS COUNTY EMPLOYMENT

Year	Labor Force	Number Employed	Number Unemployed	Unemployment Rate
August – March 2012	19,960	16,780	2,910	14.8%
January – July 2011	19,580	16,360	3,220	16.4%
Annual 2010	20,090	16,960	3,130	15.6%
Annual 2009	20,350	17,510	2,830	13.9%
Annual 2008	20,640	18,860	1,770	8.6%

Source: California Employment Development Department (EDD) 2010

PUBLIC PARTICIPATION PLAN

The CCOG, in cooperation with the County of Calaveras and City of Angels developed a Public Participation Plan for the 2012 Regional Transportation Plan update. The RTP is the foundation for transportation planning decisions in the County and City of Angels taking into consideration a regional perspective of the transportation system, and the impacts on the community's economy, environment and quality of life. A copy of the "Public Participation Plan" for the 2012 Regional Transportation Plan update is provided in Appendix 1A. Public participation activities included the following:

- Outreach materials and media coordination
- Community workshops
- Tribal consultation
- Project website
- Draft RTP and Environmental document review and comment period
- Public Hearing to adopt

In order to provide the community and project stakeholders with the opportunity to recommend and discuss ideas for transportation improvements in the County, two (2) public workshops were scheduled (one in San Andreas and one in the City of Angels. Each workshop included a short presentation describing the RTP planning process, a discussion of current transportation priorities identified in previous planning documents, and information on how residents can propose new projects or solutions to transportation issues. Representatives from the CCOG, Consultant team, and TAC were available to answer questions and receive input throughout the workshops. Comments received as part of the public participation process helped form the basis of the Draft RTP. The final "Community Workshop and Community Survey Summary Report" is attached as Appendix 1B.

ROADWAY OPERATIONS – AVERAGE DAILY PEAK HOUR PEAK DIRECTION CONDITIONS

Traffic counts on State highways were obtained from Caltrans (Appendix 2B) and counts for the local road system were provided by the County Department of Public Works and the City of Angels.

- The roadway study segments in Calaveras County were classified into two operational categories. Rural segments were classified as highways, and urban segments were classified as arterials.

- Highways were analyzed using the HCM 2010 procedures for two-lane highways. Highways were assigned as major or minor depending on the roadway design features. Major two-lane highways have a higher percentage of heavy vehicles, more passing opportunities, and fewer access points per mile than minor two-lane highways. The directional split for major two-lane highways was assumed to be more balanced than for minor two-lane highways. See Appendix 2C for technical calculations.

- Arterials were analyzed using the HIGHPLAN 2009 method. The methodology uses "percent free-flow speed" to assign Level of Service (LOS). Arterials were assigned as three-lane depending on whether a left turn lane or two-way left-turn lane was provided. See Appendix 2C for technical calculations.

The analysis of RTP study segments showed 16 locations (Table E.3) at LOS D or higher.

TABLE E.3 EXISTING DEFICIENCIES

Facility	Location	Functional Classification	PM Peak Volume	PM Peak LOS
SR 4	SR 49 to Allen Ln	Major Two-Lane Highway	385	D
SR 4	Allen Ln to Broadview Ln (Murphy's)	Major Two-Lane Highway	822	E
SR 4	Broadview Ln to Lakemont Dr (Murphy's to Arnold)	Major Two-Lane Highway	505	D
SR 4	Lakemont Dr to Henry Dr (Arnold)	Major Two-Lane Highway	520	D
SR 4	Henry Dr to Sierra Pkwy (Arnold to Dorrington)	Major Two-Lane Highway	421	D
SR 12	Burson Rd to SR 26	Major Two-Lane Highway	524	D
SR 12	SR 26 to SR 49	Major Two-Lane Highway	584	D
SR 26	San Joaquin Co. Line to Silver Rapids Rd	Major Two-Lane Highway	409	D
SR 26	Silver Rapids Rd to SR 12	Major Two-Lane Highway	657	D
SR 49	Mountain Ranch Rd to 4th Crossing Rd	Major Two-Lane Highway	354	D
SR 49	4th Crossing Rd to Brunner Hill Rd	Major Two-Lane Highway	382	D
SR 49	SR 4 (W) to Murphy's Grade Rd	Three-Lane Arterial	664	D
SR 49	Stanislaus Avenue to Mark Twain Rd	Three-Lane Arterial	787	D
SR 49	Mark Twain Rd to Bret Harte Rd	Three-Lane Arterial	666	D

Source: Fehr & Peers 2012

The LOS results deviate from the policy (LOS C) for these segments. The higher LOS (D) stems from limited passing opportunities, narrow lanes and shoulders, and continued growth in volumes of recreational vehicles and commercial vehicles. Note*: For this RTP, the LOS analysis focused on segment LOS during the PM Peak and did not include any intersection analysis.*

Future Traffic Volumes and LOS

The forecasts were developed using the Calaveras County Travel Demand Model (TDM). Fehr & Peers worked with County and City staff to review and update the Calaveras Base Year TDM as part of the RTP update. The version of the model being used for this analysis reflects Transportation Analysis Zones (TAZ) refinements in the City of Angels as part of their Traffic Impact Fee Study in 2009. The following data sources were reviewed to determine new residential and non-residential development between 2002 and 2012:

- California Department of Finance
- Info USA
- U.S. Census
- California Employment Development Department
- Calaveras County General Plan
- City of Angels General Plan

Based on the data, there was no substantial development in residential and non-residential development since 2002 that would change the baseline assumptions. Therefore, Fehr & Peers did not modify the Calaveras Base Year TDM land use totals as directed by County and City Staff. The future roadway forecasts were developed using the cumulative version of the Calaveras TDM. It was also updated to reflect the Angels Camp TAZ refinements. The TAZ refinements account for projected future growth in the City of Angels as analyzed in the City's Traffic Mitigation Fee Program Update (2010)

Future Roadway Deficiencies

The future (2035) roadways with LOS D or higher are shown in Table E.4. The list includes six local facilities (county/city roadways) that moved from LOS C to LOS D based on the capacity thresholds. In addition, eleven new segments on state facilities were forecast to be at LOS D or higher through 2035. The County and City have proposed several capacity projects and operational improvements at intersections to help facilitate local circulation. Due to funding constraints, several of these projects have moved to the "unfunded list" in Appendix M. The remaining projects from the Benefit Basin, Road Impact Mitigation (RIM), and Capital Improvement Program (CIP) will help with local circulation. The capacity improvements proposed by Caltrans for State Highways as reflected in the Transportation Concept Reports (TCR) identify needs. If funding were available to implement the improvements, projects could be conceived and included in the RTP. Unfortunately, funding is not available to implement these improvements at this time.(see Appendix 2A).

TABLE E.4 FUTURE ROADWAY DEFICIENCIES

Facility	Location	Functional Classification	PM Peak Volume	PM Peak LOS
Mountain Ranch Rd	SR 49 to Gold Hunter	Major Two-Lane Highway	360	D
Jenny Lind Rd	SR 26 to Milton	Minor Two-Lane Highway	330	D
Big Trees Rd	SR4 to Main St. Murphy's	Major Two-Lane Highway	640	D
O'Byrnes Ferry Rd	Reed's Turnpike to Tuolumne County Line	Major Two-Lane Highway	380	D
Baldwin Street	SR26 to Milton Rd	Minor Two-Lane Highway	300	D
Garner Place	SR26 to Baldwin Street	Minor Two-Lane Highway	430	D
SR 4	Stanislaus Co. Line to O'Brynes Ferry Rd	Major Two-Lane Highway	720	D
SR 4	Pool Station Road to Angel Oaks Drive	Three-Lane Arterial	660	D
SR 4	SR 49 to Allen Ln	Major Two-Lane Highway	670	D
SR 4	Allen Ln to Broadview Ln (Murphy's)	Major Two-Lane Highway	1280	E
SR 4	Broadview Ln to Lakemont Dr (Murphy's to Arnold)	Major Two-Lane Highway	840	E
SR 4	Lakemont Dr to Henry Dr (Arnold)	Major Two-Lane Highway	670	D
SR 4	Henry Dr to Sierra Pkwy (Arnold to Dorrington)	Major Two-Lane Highway	510	D
SR 12	San Joaquin Co. Line to Burson Rd	Major Two-Lane Highway	580	D
SR 12	Burson Rd to SR 26	Major Two-Lane Highway	690	D
SR 12	SR 26 to SR 49	Major Two-Lane Highway	800	E
SR 26	San Joaquin Co. Line to Silver Rapids Rd	Major Two-Lane Highway	640	D
SR 26	Silver Rapids Rd to SR 12	Major Two-Lane Highway	860	E
SR 49	Amador Co. Line to SR 12	Major Two-Lane Highway	490	D
SR 49	Mountain Ranch Rd to 4th Crossing Rd	Major Two-Lane Highway	720	D
SR 49	4th Crossing Rd to Brunner Hill Rd	Major Two-Lane Highway	720	D
SR 49	Dogtown Rd to SR 4 (W)	Three-Lane Arterial	750	D
SR 49	SR 4 (W) to Murphy's Grade Rd	Three-Lane Arterial	680	D
SR 49	Stanislaus Avenue to Mark Twain Rd	Three-Lane Arterial	870	D
SR 49	Mark Twain Rd to Bret Harte Rd	Three-Lane Arterial	690	D
SR 49	Bret Harte Rd to Vallecito Rd	Three-Lane Arterial	690	D
SR 49	SR 4 South to Tuolumne Co. Line	Major Two-Lane Highway	610	D

Source: Fehr & Peers 2012

REGIONAL AND LOCAL TRANSPORTATION ISSUES

The most significant regional and local issues identified for the County are summarized in Table E.5

TABLE E.5
CALAVERAS COUNTY REGIONAL AND LOCAL TRANSPORTATION ISSUES

Context	Issue	Potential Solution
Roadway System		
State Highways	Increasing traffic congestion and decreasing LOS on SR 4 due to increased traffic volumes and lack of passing opportunities	Implement roadway capacity projects and intersection improvements in RTP
Countywide	Lack of passing opportunities on state highways and inadequate right-of-way (ROW) 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 ROW to improve safety
Countywide	Congestion resulting from land-use decisions	Consider the "big picture" when evaluating traffic impacts of proposed developments. Continue to mitigate impacts throughout RIM fee and Benefit Basin programs
City of Angels	Unacceptable future LOS (LOS F) at SR 4 and SR 49 southern and northern intersection during the PM peak hour	Continual improvements to SR 4/49 north and south intersections as well as the eastern bypass intersection with SR 4
Copperopolis	Congestion on O'Byrnes Ferry Road and other collector due to projected growth through 2025	Continue Benefit Basin Program to mitigate traffic impacts. Replace the O'Byrnes Ferry Bridge
Arnold	Congestion on SR 4 that serves as "Main Street to downtown	Implement the Arnold Community Plan providing a shift in planned development away from SR 4; limit driveways along SR 4; extension of several local streets
Murphys	Congestion in downtown due to on-street parking	Implement the recommendations in the 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) requiring new developments to provide adequate off-street parking facilities
San Andreas	Congestion and traffic circulation along SR 49	Implement the San Andreas Community Plan (June 1981) identifying improvements to the existing collector road system and priority locations for new transportation facilities
Valley Springs	Congestion at SR 12/SR 26 intersection	Re-construct SR 12/SR 26 intersection
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	Secure new local sources of maintenance funding such as sales tax initiatives
Local Roads	Lack of emergency access routes throughout the County	Implement emergency access requirements recommended in the updated 2012 RTP

TABLE E.5
CALAVERAS COUNTY REGIONAL AND LOCAL TRANSPORTATION ISSUES

Goods Movement		
Countywide	Outdated road and highway geometrics, lack of shoulders, passing lanes, and deferred maintenance on state highways and county roads restrict access for large trucks and cause longer truck travel times and unsafe driving conditions	Pursue Highway Safety Improvement Program (HSIP) funds for state or local roadways with significant collision history and/or safety concerns
Transit		
Calaveras Transit Local Service	Limited funding to improve transit frequency and quality of service while continuing to serve transit dependent riders in outlying areas	Meet "Unmet Transit" needs as funding allows
Interregional Service	Amador does not share in the cost directly but contributes in-kind by meeting Calaveras transit in Mokelumne Hill which saves approx. $16,000 annually	Continue to work with adjacent county RTPAs to implement cost-sharing arrangements for interregional transit service
Aviation		
Maury Rasmussen Field	Protect airport operations from inappropriate adjacent development. Acquire or protect land around airport for future airport projects. Maintain existing airport facilities in safe operating condition	Implement Airport Land Use Plan and update as needed. Work with neighboring land owners to acquire additional property for hangar expansion
Non-Motorized Facilities		
Bike and Pedestrian Facilities	Lack of a consistent network of bicycle and pedestrian facilities within and between communities	Pending adoption by the County implement priority improvements in the Bicycle Master Plan for existing and future facilities. Implement non-motorized travel policies in conjunction with private development and public projects. Implementation of recommendations contained in community plans
Air Quality		
Environmental Impacts	Non-attainment status for state hourly ozone standard and federal 8 hour ozone standard	Adopt ozone strategies listed in the latest State Implementation Plan (SIP) for northern California

Source: CCOG; Calaveras County; City of Angels

REGIONAL GOALS

Goal 1: Provide a high degree of mobility for people and goods in Calaveras County using multi-modal solutions which preserve the rural character of the region.

Goal 2: Promote equity for all system users.

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

Goal 4: Support balanced economic development of the region, emphasizing non-auto oriented development strategies.

ACTION ELEMENT

All projects listed in Chapter 4, the Action Element, are categorized as one of three Tier designations (Tier 1, Tier 2, or Tier 3). Projects within each Tier are generally listed in random order unless otherwise stated to allow for added flexibility. Consequently, the CCOG, County, City of Angels, and/or Caltrans may change the priority ranking or project scope during the RTP approval process.

Tier 1 – Tier 1 improvements represent short-range projects that are fully fundable from anticipated revenue sources and are normally programmed during the first 10 years (2011 – 2021) of the RTP. The first five years of projects (RTIP) are consistent with the most recent STIP fund estimate adopted by the CTC.

Tier 2 – Tier 2 improvements represent long-range projects that are likely fundable from anticipated revenue sources and are planned for programming in the 11-25 (2022 – 2035) year timeframe. If the funds cannot be identified, these projects are moved to the "unfunded" list until future funds are identified.

Tier 3 – Tier 3 improvements represent projects that are longer-term and would not have full funding during the life of the RTP (by 2035) given current revenue projections. However, many of these projects do represent desired long-term projects for the State, County, City and Tribal interests, and are included on the "unfunded" list of projects in Appendix 4N. At the discretion of the CCOG, some of these "unconstrained" projects can be included in the RTP constrained financial plan if additional funding becomes available.

The approach for the 2012 RTP is to determine the available revenues by funding source, prioritize and arrange recommended improvements based on the projected funding, and make decisions based on projected surpluses or shortages. Past historical trends for the CCOG, County and the City of Angels, as well as the latest Calaveras County Economic Forecast from Caltrans, were used to establish baseline and future revenue projections and totals.

RTP REVENUES

Table E.6 summarizes the short-range and long-range revenue estimates from local, state, and federal sources for the 2012 RTP through the horizon year (2035). The CCOG anticipates approximately **$294.4 million** through 2035 for all sources.

TOTAL PROJECT COSTS

Table E.7 provides a summary of total project costs for the RTP. In line with Year of Expenditure (YOE) requirements, the CCOG has escalated all project costs to the appropriate tier, or timeframe, of completion at 2.5 percent per year consistent with CPI forecasts from the Bureau of Economic Analysis.

The YOE ensures that "total" project costs account for inflation. Short-range project costs for the 2012 RTP with O&M total approximately $190.7 million, while long-range costs are estimated at $103.7 million. The total for all funded RTP projects is approximately **$294.4 million** through 2035.

FISCAL CONSTRAINT – PROJECT COSTS VS. TOTAL REVENUES

The 2012 Calaveras County RTP is fiscally constrained to the total revenue and cost assumptions, and considers the uncertainty of future revenues from federal and state sources. Table E.6 provides a comparison of total costs and revenues through 2035, including an estimate of operations and maintenance costs. Overall, the RTP shows a total project cost of **$294.4 million** in capital and operating costs for all modes, and total revenues of **$294.4 million** (rounded) to pay for those capital costs. The amount of funding available for operations and maintenance of the system (O&M) is estimated from various sources, including HUTA, RSTP, Transit and Aviation. The relatively small deficit of costs compared to revenues ($51,844) may change as projects are prioritized for actual construction, more projects are added or deleted, and actual revenue and cost sources are refined through federal and state budget allocations and authorization.

TABLE E.6
TOTAL COST VS. TOTAL REVENUES

Modes	Total Costs	Total Revenues	Difference
Roads/Bridges	$208,069,000	$234,845,006	$26,776,006
Transit	$33,795,000	$33,770,150	($24,850)
Aviation	$8,186,000	$14,107,000	$5,921,000
Non-Motorized	$41,122,000	$8,397,970	($32,724,000)
TDA Administration	$3,240,149	$3,240,149	$0
Total Project	**$294,412,1490**	**$294,360,275**	**($51,844))**

CHAPTER 1: INTRODUCTION

The Calaveras Council of Governments (CCOG) was formed as the Regional Transportation Planning Agency (RTPA) in January 1998 through the creation of a Joint Powers Agreement between the County of Calaveras and the City of Angels. As an RTPA, the CCOG is the designated planning and administrative agency for transportation projects and programs in the County. Government Code Section 29535 establishes the responsibilities of the CCOG which include:

- Administration and Management
- Transportation Planning and Regional Coordination
- Transit Alternatives and Improved Air Quality
- Transportation Development Act Claimant Funding
- Grant Applications and Management

The CCOG is composed of seven members - two County Board of Supervisors, two Council Members from the City of Angels, and three members selected from the public at large. The CCOG promotes a dynamic view of planning within the County by supporting its member agencies in the delivery of a variety of planning projects and programs.

The 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 2012 Regional Transportation Plan (RTP) will serve as the guide to planning and prioritizing transportation investments in Calaveras County over a 25-year period (2010 – 2035). The development of the RTP is a cooperative effort between the CCOG, County, City of Angels, California Department of Transportation (Caltrans), and residents of Calaveras County.

The State adopted 2010 RTP Guidelines requires RTPAs to develop a plan that integrates the transportation system with planned land uses. This integrated approach to land use and transportation planning aims to reduce vehicles miles traveled (VMT) by reducing trip length and driving times for various trip purposes. The outcome is reduced congestion and carbon emissions resulting in overall improved air quality.

Calaveras County is generally considered a slow growth County with 1 to 2 percent annual population growth. However, in this RTP update, the CCOG sees an opportunity to strategically invest available funding with the goal of achieving a balanced, multimodal transportation system throughout the County and within the City of Angels. The stakeholder agencies involved in transportation planning are committed to providing a stronger connection between transportation and land use planning so that the size and function of the transportation system reflects the growth goals as well as community values and vision established by the CCOG Board, the Calaveras County Board of Supervisors, and the City of Angels, City Council.

Transportation improvements proposed in the 2012 RTP cover all modes of travel reflecting a system planning approach within Calaveras County. Improvements are categorized as short-term (0-10 years) or long-term (11-25 years). The Regional Transportation Improvement Program (RTIP) is comprised of the

first five years of RTP projects and is described later in the document. The 2012 RTP planning effort focuses on developing a financially constrained transportation system that ensures projected revenues cover all transportation improvement costs over the life of the plan (2035). The 2012 RTP is consistent with the *2010 Regional Transportation Plan Guidelines* by incorporating the following:

- Adhering to the latest revised RTP Checklist (2010).
- Strengthening public involvement by developing and following a Public Participation Plan, included as a separate appendix (Appendix 1A).
- Providing coordination with Calaveras County Tribal governments through formal consultation and collaboration with the California Valley Miwok Tribe.
- Documenting efforts to involve the trucking, business, and stakeholder interests in the planning process (Appendix 1B).
- Documenting efforts to involve the resource agencies in the planning process (Appendix 1B).
- Evaluating different funding strategies relative to the adopted "program level" performance measures, and the goals and policies established for the RTP in Chapter 3 and Chapter 4.

CONSISTENCY REQUIREMENTS

The 2012 RTP demonstrates close ties to the Regional Transportation Improvement Program (RTIP), the Interregional Transportation Improvement Program (ITIP), the Overall Work Program (OWP), the Federal Transportation Improvement Program (FTIP), the California Transportation Plan (CTP) and Interregional Blueprint, and the California Strategic Highway Safety Plan, and the California Wildlife Action Plan.

The RTIP is a five year program of projects prepared by the CCOG, County and City of Angels. The RTIP is based on the RTP and a region-wide assessment of transportation needs and deficiencies. The ITIP is a five year list of projects that is prepared by Caltrans, in consultation with RTPAs. Projects included in the ITIP and RTIP must be consistent with the RTP for Calaveras County. The OWP lists the transportation planning studies and tasks to be carried out by the CCOG during the current fiscal year.

REGIONAL TRANSPORTATION PLANNING PROCESS

A brief history of regional transportation planning in Calaveras County is provided below:

- In 1972, Assembly Bill No. 69, Chapter 1253 created the California Department of Transportation. The bill provided for multimodal responsibilities, established a Division of Transportation Planning, and specified a planning process for the preparation of regional plans and a state transportation plan by January 1, 1976. The law required the preparation of Regional Transportation Plans (RTP) to address transportation issues and assist local and state decision-makers in shaping California's transportation infrastructure. The law also required citizen

participation throughout. Preparation of systems-level environmental plans were to include goals, objectives and policies; forecasts of 20-year needs; plans and programs for general transportation systems, including land, air, and water with appropriate public and private terminals; and plans for goods movement.

- In 1977, Alquist-Ingalls Act AB 402 required the preparation of a five-year transportation improvement program. It also required the RTP to contain a transportation policy element, an action element and financial element. The development of the RTP is the responsibility of the RTPA, in this case, the CCOG.

- In 1979, Senate Bill 620 created the State Transit Assistance (STA) Program to aid local transit systems provide effective service. STA funds are derived from a statewide sales tax on gasoline and diesel fuel. Fifty percent of STA funds allocated to RTPAs are for mass transit projects are allocated according to population and 50% are allocated according to operator revenues from the prior fiscal year.

- In 1997, Senate Bill 45 created the Procedures for Administering Local Grant Projects in the State Transportation Improvement Program (STIP) and responsibilities of Regional Transportation Planning Agencies. Funding for this program is primarily from the State Highway Account (SHA) and includes various federal and state transportation programs. This legislation overhauled the 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 the Regional Improvement Program (RIP), and 25 percent to the State's Interregional Improvement Program (IIP). For each two-year cycle, the RTPA selects projects to be funded from its STIP share and adopts projects as the Regional Transportation Improvement Program (RTIP). Every RTIP must be consistent with the RTP. Rural regions may adopt and submit an RTP every five years.

- California government code 14522 requires the California Transportation Commission (CTC) develop RTP Guidelines to facilitate the preparation, consistency, and utilization of RTPs throughout the state. The Guidelines are updated in order to respond and conform to state and federal transportation planning legislation. The Guidelines were updated in 1999, 2003, 2007, and 2010. The current Guidelines were adopted by the CTC in April 2010.

- California government code 65080 specifies the content of the RTP to include a policy element, action element and financial element.

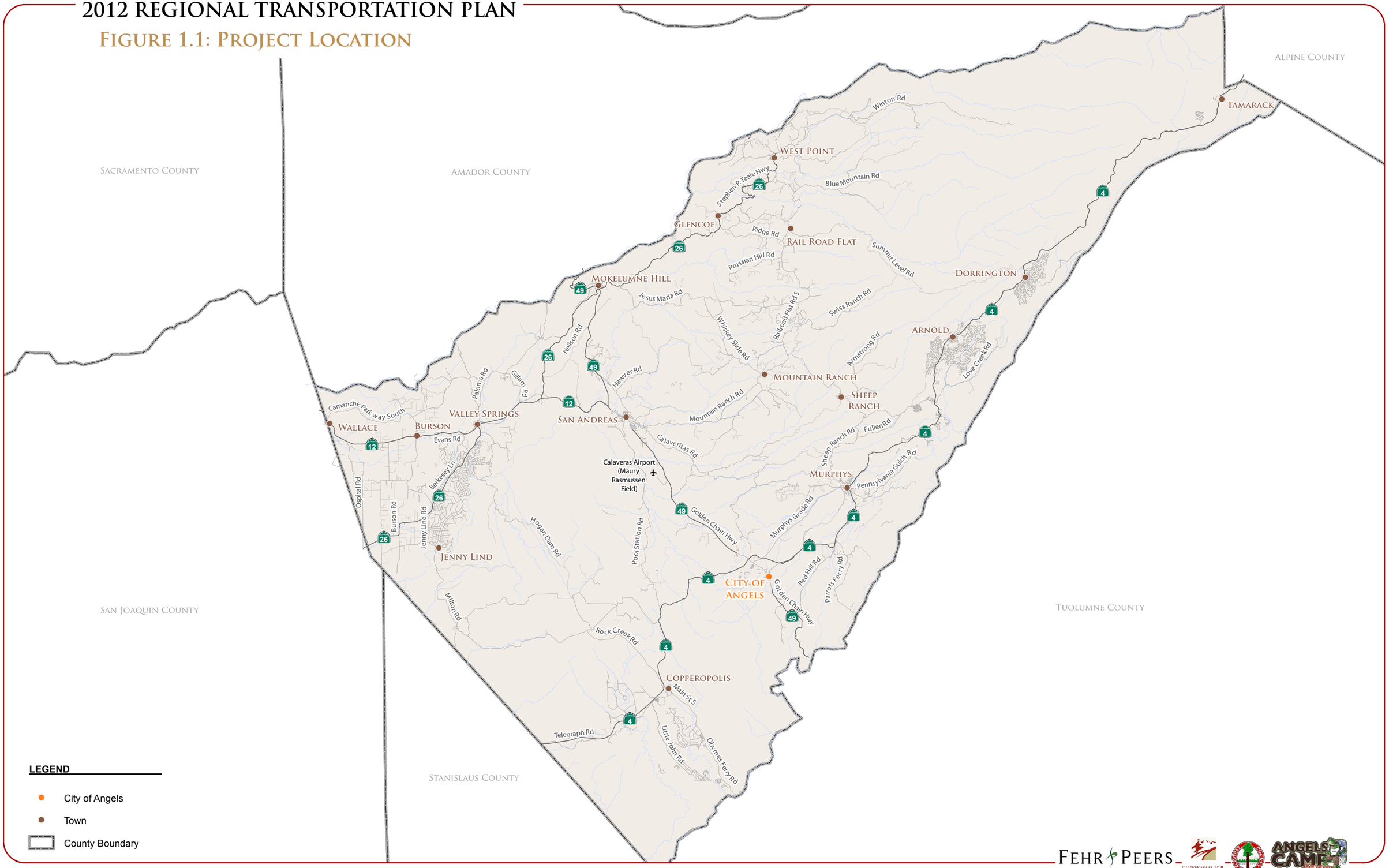
REGIONAL SETTING

Calaveras County is located within the foothills of the Sierra Nevada mountain range approximately 133 miles east of San Francisco and 85 miles southeast of Sacramento. The County was incorporated in 1850. The County is bordered by Alpine County to the east, Amador County to the north, Tuolumne County to the south, and Stanislaus and San Joaquin Counties to the west (see Figure 1.1). The County seat is located in the unincorporated community of San Andreas. The City of Angels is the only incorporated

community in Calaveras County. The county is rural with a dispersed population and a population density of approximately 44 persons per square mile (0.6 persons per acre).

2012 REGIONAL TRANSPORTATION PLAN

Figure 1.1: Project Location



FEHR PEERS

Due to the desirable nature of the County as a place to reside or visit, both residential and tourism growth has increased in recent years. For residents, the proximity to employment opportunities in San Joaquin County has generated residential growth in the western portion of the county. For visitors and residents alike, recreation and tourist activities cover a host of activities including wine tasting, boating, fishing/hunting, and special events. The most recognized event is the Calaveras County Fair and Frog Jumping Jubilee held each May. The Calaveras Big Trees State Park, a grove of Giant Sequoias located east of Arnold on SR 4, attracts many visitors annually to enjoy their splendor.

Tourism contributes significantly to the regional economy in Calaveras County. The combined Transient Occupancy Tax (TOT) revenues between unincorporated Calaveras County and the City of Angels totaled more than $1.1 million dollars in Fiscal Year 2004/2005. The Calaveras County Profile produced by the Calaveras County Visitors Bureau (2009) provides estimates of total spending by tourists and visitors to the County. The data ranges from approximately $85 million in 1992 to $150 million in 2008. In 2009, total spending dropped to approximately $142 million as the State's economy began to slow and fuel prices continued to increase. According to the profile, the top two categories for visitor spending are vacation homes and hotel accommodations. The County's peak tourist season is generally between April and June; while the peak tourist season for the City of Angels is generally between the months of July and September. The emphasis on system preservation and rehabilitation of county and city roadways, bridge replacement, and road upgrades within the 2012 RTP is important to economic development and economic well-being of the area and its residents.

DEMOGRAPHICS

The following information provides the most recent demographic profile of the County and City of Angels. Information was taken from the 2010 Census, Calaveras County Profile (Visitors Bureau 2009), Department of Finance (2010), and the American Community Survey (2008-2010).

POPULATION

Population is a key factor contributing to future growth trends for housing, employment, transit, and transportation infrastructure. Table 1.1 shows the most current distribution of population between the County and the City of Angels for January 2011 and January 2012. The County population declined by 0.6 percent and the City population declined by 1.1 percent.

TABLE 1.1 TOTAL POPULATION DISTRIBUTION

	Total Population		Percent
	Jan 2011	Jan 2012	Change
Calaveras	45,092	44,840	-0.6
City of Angels	3,792	3,752	-1.1
Balance of County (unincorporated)	41,300	41,088	-0.5

Source: DOF E-1 City/County Population 2010

The only incorporated city in the County is the City of Angels. The County's other Census Designated Places (CDP) besides City of Angels includes: Arnold, Avery, Copperopolis, Dorrington, Mokelumne Hill,

Murphys, Rancho Calaveras, San Andreas, Vallecito, Valley Springs, and West Point. Note: A **Census-Designated Place** is a concentration of population, in an unincorporated area, identified by the US Census Bureau for statistical purposes. CDPs are delineated for each decennial census as the statistical counterparts of incorporated places such as cities, towns and villages. CDPs are populated areas that lack separate municipal government, but which otherwise physically resemble incorporated places. Table 1.2 provides 2000 and 2010 Census population numbers for these communities.

TABLE 1.2 CENSUS DESIGNATED PLACES - POPULATION

CDP	2010 Population	2000 Population	Land Area (square miles)
Arnold	3,843	4,218	14.8
Avery	646	672	4.5
Copperopolis	3,671	2,363	21.5
Dorrington	609	727	3.7
Mokelumne Hill	646	1,197	3.1
Mountain Ranch	1,628	1,557	41.2
Murphys	2,213	2,061	10.3
Rancho Calaveras	5,325	4,182	8.5
San Andreas	2,783	2,615	8.7
Vallecito	442	427	8.6
Valley Springs	3,553	2,560	9.8
West Point	674	746	3.7

Source: 2010 Census

Historical Population Trends

In spite of the current down trend, it is insightful to look at population trends in the County and adjacent counties over the past 10 years to help determine past growth. Two sources of data were reviewed – the 2010 Census and the California Department of Finance (DOF). Table 1.3 provides population numbers based on DOF estimates for each year beginning in 2000. The CCOG and its Technical Advisory Committee (TAC) have generally agreed that the DOF estimates should be used for the 2012 RTP. Table 1.3 shows relatively slow growth in Calaveras and Stanislaus counties since 2000. Alpine, Amador and Tuolumne have shown less than one percent growth during the same 10-year period.

TABLE 1.3 HISTORICAL POPULATION TRENDS IN ADJACENT COUNTIES

County	2010	2009	2008	2007	2006	2005	2004	2000	Annual Average
Calaveras	**45,642**	**45,562**	**45,702**	**45,638**	**45,316**	**44,773**	**43,924**	**40,658**	**1.4%**
Alpine	1,176	1,180	1,208	1,248	1,255	1,208	1,266	1,203	-0.2%
Amador	38,117	37,905	37,864	38,085	37,964	37,722	37,147	35,205	0.9%
Stanislaus	515,954	512,052	510,396	508,372	503,548	498,020	490,283	449,767	1.6%
Tuolumne	55,324	55,258	56,060	56,133	56,558	56,452	56,369	54,587	0.2%

Source: California Department of Finance (DOF) Report E-1 Historical County Population Trends

Population Growth Projections

Table 1.4 shows that DOF projects a 9 percent increase for Calaveras County between 2012 and 2020, and approximately 13 percent between 2020 and 2035. The growth projection for 2035 results in a countywide population estimate of 55,541 persons.

TABLE 1.4 PROJECTED POPULATION GROWTH FOR CALAVERAS COUNTY 2000 - 2035

	2000	2012	% Change 2000-2012	2020	% Change 2012-2020	2035	% Change 2020-2035
Calaveras County	40,658	44,840	10.3%	49,007	9.3%	55,541	13.3%

Source: California Department of Finance – Interim Population Projections May 2012.

It is important to consider other population groups when planning transportation services. These groups include the elderly and disabled, low income, and youth. Data from the American Community Survey for 2008 to 2010 show 17 percent of Calaveras population with a disability, approximately 22 percent of the workforce below the poverty line, and 55 percent of workers earned less than $10,000 annually. These statistics add to the number of people relying on alternative transportation such as transit.

The California Department of Transportation Economic Analysis Branch also provides forecasts of existing and future population trends between 2011 and 2040 for each county. The population forecast for Calaveras County in 2035 is 55,048 which is very consistent with the revised interim DOF number.

EMPLOYMENT

The California State Employment Development Department (EDD) produces employment data on the number of individuals living and working in the County during a given year. In March 2012 the number of employed persons in Calaveras County was 16,780. Table 1.5 provides a three and a half-year summary of the total labor force, number employed and unemployed, and the unemployment rate for the County since 2008. The data shows a steady decline in employment and a rise in the unemployment rate since the economic downturn beginning in 2008. Between August 2011 and March 2012 the unemployment rate fell to 14.8 percent from 16.4 percent. This is a positive trend for Calaveras given the recent trends in the economy. The EDD data will be updated each five-year period and incorporated into future RTP updates.

TABLE 1.5 CALAVERAS COUNTY EMPLOYMENT

Year	Labor Force	Number Employed	Number Unemployed	Unemployment Rate
August – March 2012	19,960	16,780	2,910	14.8%
January – July 2011	19,580	16,360	3,220	16.4%
Annual 2010	20,090	16,960	3,130	15.6%
Annual 2009	20,350	17,510	2,830	13.9%
Annual 2008	20,640	18,860	1,770	8.6%

Source: California Employment Development Department (EDD) 2010

The EDD also lists the fastest growing occupations in Calaveras County which include teachers, computer analysts, mental health counselors, fitness trainers, and veterinary assistants. The largest employers are shown in Table 1.6. The number of employees is indicated where information was available.

TABLE 1.6 LARGEST EMPLOYERS IN CALAVERAS COUNTY

Employer (Number Employed)	Job Category	City/Community
Forestry & Fire Protection (138-258)	Government	San Andreas
Mark Twain St. Joseph's Hospital (248)	Medical	San Andreas
Bret Harte High School	Education	City of Angels
County Office of Education (946)	Education	Calaveras County
County Government (380)	Government	Calaveras County
Caltrans (seasonal) (60)	State	Calaveras County
Ironstone Vineyards	Manufacturing (wine)	Murphys
Mark Twain Convalescent Hospital	Medical	San Andreas
Mountain Machining	Manufacturing	Angels Camp

Source: Coordinated Human Service Transportation Plan 2008; Short-Range Transit Plan 2009; California Employment Development Department (EDD) 2010; Calaveras County Chamber of Commerce

Employment Projections

The EDD also provides industry employment projections for the "Mother Lode Region" (MLR: Amador, Calaveras, Mariposa, and Tuolumne counties) for 2008 through 2018. This data does not include Stanislaus County because Stanislaus has a tenfold population base compared to Calaveras and/or Tuolumne counties, which are the largest population bases included in the MLR data.

Between 2008 and 2018, total employment in the MLR is projected to increase by 2,000 workers or four percent, bringing the total to 53,200 workers. To distribute this projected growth to Calaveras County over the next 10 years the data shows that Calaveras County had approximately 40 percent of the total MLR employment (20,640 of 51,130 workers) in 2008. If this ratio (40 percent) is maintained through 2018, the County will experience an increase of approximately 800 additional workers (40 percent of 2,000). The largest additions to employment through 2018 are projected in the transportation sector, professional and business sector, education and health care sector, and local government.

HOUSING

The 2000 Census reported 22,946 housing units, of which 19,398 were single-family, 1,312 were multi-family, 2,055 were mobile homes, and 181 were classified as other (van, motor homes, trailers, etc.). A more recent analysis of existing and future dwelling units is contained in the *Calaveras County Land Use Assumptions Memorandum* (PMC 2006). This document provided the foundation for the Calaveras County Travel Demand Model and land use assumptions used in the 2007 RTP. The document developed baseline estimates for 2006 using the following methodology:

- All parcels were divided into the County Assessor's land use categories for occupied and vacant

uses.

- The 2006 tax roll and refuse billing for all parcels were reviewed to refine the initial estimates.
- Parcels were classified as vacant where the Assessor's structural value was less than $30,000.

The memorandum and methodology estimated a total of 26,226 dwelling units and 12,163 vacant parcels of land in 2006. In 2009, the US Census Bureau reported a total of 27,438 housing units in Calaveras County. The homeownership rate between 2005 and 2009 was reported at approximately 80 percent. Housing units in multi-unit structures totaled approximately 3.7 percent or 1,015 units. The occupancy rate for homes was 2.55 persons and the number of residential building permits issued in 2009 was reported at 58. The 2012 RTP reviewed this base land use information for possible updating in the Calaveras Travel Demand Model. The following describes the consultant and project team findings.

Update to Calaveras County Base Year Travel Demand Model

The current Calaveras County base year model is validated to 2002 traffic and land use conditions. An update to this base year model's land use was considered for the 2012 Calaveras RTP. However, an analysis of future land use, development projections and the relative slow population growth in the County did not warrant changes to the existing base land use estimates.

Based on these results, the CCOG, County and City of Angels made the decision to maintain the TDM land use base inputs assumptions.

TRAVEL

The regional movement of people within the County can be classified into three broad travel categories: commuter, recreational, and visitor. The County commute patterns consist mostly of automobile traffic from the smaller communities and rural areas into the State Routes 49, 26, 4 and 12 corridors. Congestion levels for roads and transit approach or exceed capacity for short periods and usually occur in the morning and evening peak periods near major intersections. Recreational traffic patterns are dispersed over the day and evening and usually do not adversely affect street or transit capacity except during major events such as the County fair and annual Frog Jump in the City of Angels. The majority of interregional and intra-regional traffic continues to be concentrated along the SR 49 and SR 4 corridors and as identified in the nexus study for the County Road Impact Mitigation Fee Program (RIM).

County-to-County Commute Patterns

The most current information on place of residence and place of employment is provided by the EDD. Table 1.7 shows that people who live and work in Calaveras County account for 65.5 percent of journey-to-work trips within the County. The second largest commute shed (17.1 percent) is between Calaveras and San Joaquin County.

TABLE 1.7 COUNTY-TO-COUNTY COMMUTE PATTERNS		
Area of Residence	Area of Workplace	Number of Workers/Percent
Calaveras County	Calaveras County	9,331 (65.5%)
Calaveras County	San Joaquin County	2,435 (17.1%)
Calaveras County	Amador County	1,211 (8.5%)
Calaveras County	Tuolumne County	679 (4.8%)
Tuolumne County	Calaveras County	599 (4.2%)
	Total	14,255 (100%)
Source: EDD 2010		

Means of Transportation to Work (Mode Split)

The 2005 – 2007 American Community Survey conducted by the US Census Bureau provided updated journey-to-work data as shown in Table 1.8. Almost 90 percent of workers use the automobile to get to work, of which 12.1 percent carpool. This information can be updated further when 2010 Census information becomes available. This information validates the planning assumption that the automobile is the primary mode of travel. According to the survey, approximately 10 percent of commuters use other modes than the auto. The RTP strives to increase the use of non-auto modes through its policies and recommended improvements to bicycle and pedestrian facilities.

TABLE 1.8 MODE SPLIT FOR JOURNEY-TO-WORK	
Drove Alone	77.6%
Carpooled	12.1%
Public Transit	0.6%
Walked	2.3%
Other (includes motorcycle)	0.7%
Worked at Home	6.1%
Source: 2005-2007 American Community Survey – U.S. Bureau of Census	

TRANSPORTATION AND LAND USE CONNECTION

The topography of the county varies in land elevation from near sea level in the western portion to approximately 8,000 feet in the eastern mountains. The total area of Calaveras County is reported at 1,036 square miles, of which 1,020 square miles are land (98 percent) and 16.8 square miles are water (2 percent).

The guiding principle in preparing the Land Use and Circulation Elements of the Calaveras County General Plan is to use the physical environment – including the transportation network – to guide future land use patterns that will develop as growth occurs. This principle is reinforced in the RTP and the General Plan which recognizes that future development should occur in areas that will be easiest to develop, provide cost-effective access to existing and planned infrastructure, and is consistent with stated goals and objectives of the CCOG, County, and City of Angels. This type of development pattern typically has lower public service costs, the least negative environmental effect, and will not displace or endanger critical natural resources. The intended outcome of integrating transportation and land use decisions is lower

improvement costs and increased operational efficiency of the transportation system. This pattern, as discussed before, also aids in the reduction of VMTs which has a direct effect on air quality and greenhouse gas (GHG) emissions.

PLANNED DEVELOPMENT

The following development projects represent the types of residential and/or commercial development being considered throughout Calaveras County. Given the current economic conditions, some delay or actual cancellation has occurred. The development that has been approved does not affect the baseline land use assumptions used in the TDM. Future forecasts will consider the proposed changes in land use as part of the General Plan development and approval process.

The following information shows the status of planned development by District and transportation facility:

District 1 / District 5 (SR 12)

Development	Units	Status Code*
Charboneau Estates (Valley Springs)	64 lots	(1)
Crestview Estates (near Wallace)	37 lots	(1) (6)
EP & G Properties (Spring Valley Estates) (1)	35 lots	(1) (6)
Las Tres Marias (near Wallace)	15 lots	(3)
Meadow View Estates (Widhalm)	11 lots	(1) (6)
Mendonca (near Wallace)	6 lots	(1)
Mission Ranch (Valley Springs)	219 lots; 2 commercial parcels	(2)
Stamper Ranch	21 lots	(3) (6)
Ventana	50 lots	(1)

District 1 / District 5 (SR 26)

Development	Units	Status Code*
Calaveras River Estates	5 lots	(3)
Calaveras River Heights	25 lots	(1) On hold
Courtyard at La Contenta	Shopping Center	(2)
Del Verde Subdivision	91 lots	(1) (6)
Gold Creek Estates	385 lots	(4) (7) in phases
Hogan Oaks 1 and Hogan Oaks 2	122 lots	(1)
New Hogan lake Estates (Platner)	83 lots	(3) (4) in phases
North Vista Plaza	156 lots	(4) (7)
Old Golden Oaks	96 lots	(1)
Olive Orchard Estates	50 lots	(4) (7)
George Rose	6 lots	(3)
Vista Plaza II	38 lots	(3) (4) in phases
Vosti Properties	24 lots	(3) extension of time approved
Bolin Property	18 lots	(1)

Briski Property	25 lots	(1)
Schroven Property	20 lots	(1)
Zinfandel Estates (Robinson)	4 lots	(1)

District 4 (City of Angels/Copperopolis SR 4)

Development	Units	Status Code*
Copper Town Square	39 to 69 units and commercial space	(4) in phases
Copper Town Square Condos	May be included in total above	
Sawmill Lake	800 units and Village	(2)
Vineyard Estates	18 lots	(2)
Saddle Creek	1,650 lots	(3) (4) phases
Oak Canyon	2,275 lots, 400 permanent units, 800 transient	(3) (6)
Tuscany Hills	300 lots	(3) (6)
Copper Valley Ranch	2,400 lots	(1) (2)

District 3 (Murphys/Arnold SR 49 and SR 4)

Development	Units	Status Code*
Forest Meadows (various applications)	220	(1) (2)
Murphys Rocky Hill (in Murphys)	43	(2)
Mitchell Ranches (in Vallecito)	113	(2)
Coyote Creek (near Douglas Flat)	104	(1)
Sutton Enterprises on SR 49 at Melones)	14	(1)
(Deaver Projects on SR 49 at Melones):		
Nielsen	5	(2)
Rasmussen	5	(2)
Wilson	4	(2)
Field	4	(2)
Novogradac (Camp Connell area)	15	(2)
Khosla (Sheep ranch Road)	44	(1)

*Status Code:
(1) In approval process – application incomplete or missing baseline studies for CEQA review
(2) In approval process – review is ongoing
(3) Tentative Map approved
(4) Final Map approved
(5) Map is expired
(6) Land ownership has changed or Application has changed hands. Status is uncertain
(7) Under Construction

COORDINATION WITH OTHER PLANS

Development of the 2012 RTP update included a review of various regional and local plans and/or policy documents addressing transportation in Calaveras County.

CALAVERAS COUNTY GENERAL PLAN, 1996

The purpose of this plan is to assist decision makers in coordinating land use and infrastructure decisions and to guide future development. California Government Code Section 65302 identifies seven elements which must be included in all general plans: Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety. Both the Circulation and Open Space elements contain policies relevant to the 2012 RTP.

The Open Space Element describes efforts to develop local and regional trails to provide bicycle and pedestrian access to open space and recreation. It incorporates the efforts to create the Mokelumne Coast to Crest Trail by securing a permanent, public trail access along the North Fork of the Mokelumne River which would connect from the San Francisco Bay to the Sierra Nevada Range just south of Lake Tahoe.

The Circulation Element establishes transportation goals and policies and implementation measures to assure the transportation system adequately addresses the planned growth for the County. *Note: This information may change through the life of this RTP as Calaveras County is currently conducting a comprehensive update of their 1996 General Plan.*

CITY OF ANGELS 2020 GENERAL PLAN, 2009

The City of Angels adopted an updated General Plan in February of 2009 to guide physical development of the city and of any land outside of its boundaries which, in the judgment of the planning agency, bears relation to its planning. The 2020 General Plan includes the seven mandatory elements, pursuant to Government Code Section 65302, as well as six additional elements: Public Facilities & Services, Cultural Resources, Air Quality, Economic Development, Community Identify, and Parks and Recreation.

The City of Angels Vision Statement, adopted by the Angels City Council in 1998, is:

- To beautify and promote uniformity in the City by encouraging cleanliness, rehabilitation, maintenance and enhancement of public and private property
- To create family sustaining jobs and healthy well-balanced community
- To promote the cultural interest of the City through the preservation of our historical heritage
- To provide public services and facilities that are compatible with the needs and philosophy of the community

The Circulation Element provides goals, policies and implementation programs aimed at balancing the city's already overburdened transportation system with the need to accommodate an increasing population of residents and visitors while maintaining the rural character of Angels Camp.

ANGELS CREEK MASTER PLAN AND TRAILS, 2012

The Angels Creek Master Plan and Trail establishes the framework for a bicycle and pedestrian trail along Angels Creek within the City of Angels and its Sphere of Influence. The proposed trail is approximately 4.5 miles in length starting at the intersection of Rolleri Bypass road and extending south to New Melones Reservoir following Angels Creek. The Angels Creek Master Plan and Trail was identified in the 2020 General Plan as an Implementation Program. The Master Plan defines the proposed trail alignment and trail types. Trail support facilities are identified including parking, restrooms, benches, shade structures, and drinking fountains. Project phasing strategies and potential funding sources are addressed. The trail will be implemented as development occurs and as grants are obtained. The Master Plan can be utilized in the applications for grants.

CALAVERAS COUNTY PEDESTRIAN MASTER PLAN, 2007

The plan proposes pedestrian improvements including sidewalks and pathways, and intersection improvements. A key focus of the plan is on developing local networks of walkways, programs and specific pedestrian policies. The plan helps to promote adequate access to popular destinations countywide and ensure the development and application of consistent design standards. The Pedestrian Master Plan is intended to coordinate and guide the provision of all pedestrian related plans, programs, and projects in the County. *Note: This Plan has not been adopted by the Calaveras County Board of Supervisors and does not include an environmental document.*

CALAVERAS COUNTY BICYCLE MASTER PLAN, 2007

The 2007 Bicycle Master Plan (BMP) recognized the opportunity for improving the bicycling environment through new development occurring in the growth areas of Calaveras County. The plan proposes improvements and design guidelines for Class I, II, and III bikeways. Some key objectives of the plan include:

- Providing alternative modes of travel and addressing future traffic congestion in the County;
- Improving the enjoyment, health, and recreation for the residents of Calaveras County; and
- Addressing safety concerns for bicyclists through physical and program improvements.

The BMP and the 2012 RTP address these needs through countywide and local bikeway improvements and recommendations in Chapter 2 (Needs Assessment), proposed projects in Chapter 4 (Action Element) as well as the goals and policies for Non-motorized modes in Chapter 3 (Policy Element). *Note: This Plan has not been adopted by the Calaveras County Board of Supervisors and does not include an environmental document.*

ARNOLD RURAL LIVABLE COMMUNITY-BASED MOBILITY PLAN, 2007

The purpose of the Arnold Rural Livable Community-Based Mobility Plan, in conjunction with the Arnold Community Plan (1998), is to create a community-based plan addressing the current needs of traffic calming devices, increased pedestrian and bicycle safety, parking supply, economic development, land use refinement, and increased access to recreation opportunities and facilities. The focus of the Plan is to create a "livable community": a place where residents and visitors alike can share a healthy, safe, and convenient transportation system for traveling around town and through town. *Note: This Plan has not been adopted by the Calaveras County Board of Supervisors and does not include an environmental document.*

CALAVERAS COUNTYWIDE CIRCULATION STUDY, 2007

The Calaveras Countywide Circulation Study seeks to address deficiencies in the roadway network, and to improve fire access throughout the county. The study documents existing conditions of the Calaveras County transportation network, focused on areas outside of the existing community plan areas, and provides recommendations for serving traffic demands while maintaining the high quality of life currently enjoyed by Calaveras County residents and visitors.

SAN ANDREAS RURAL LIVABLE MOBILITY PLAN, 2009

The purpose of the San Andreas Rural Livable Mobility Plan is to document the Community's vision in support of a balanced transportation system that addresses the needs of pedestrian/bicycle access and safety, accommodates parking, and facilitates community-building activity by planning for functional, comfortable public spaces. The Plan outlines projects and strategies to help achieve the vision for San Andreas. San Andreas is the County seat and hosts the County Government offices, County Hospital, Calaveras High School, Department of Motor Vehicles, other agencies and non-profit organizations, in addition to community parks and historical assets. State Route 49 (known locally as Saint Charles Street) is the main thoroughfare of San Andreas. The corridor has a mixture of land uses, including restaurants, shops, housing, and services which cater to local residents, governments, services, business and travelers. Through an extensive public outreach process, the following themes emerged as important elements of the plan:

- Retain small town character and economic viability
- Enhance bike and pedestrian safety
- Consider San Andreas as a travel destination for education, medical, shopping, and government services
- Increase opportunities for walking, biking and transit

A full summary of the plan can be found at the CCOG website at www.calacog.org. *Note: This Plan has not been adopted by the Calaveras County Board of Supervisors and does not include an environmental document. The most current County adopted San Andreas Community Plan is from 1981.*

EBBETTS PASS SCENIC BYWAY CORRIDOR MANAGEMENT PLAN

The Ebbetts Pass National Scenic Byway (a portion of California State Highway 4) is a 58-mile route between Arnold, California and Markleeville, California. This portion of Highway 4 was designated as a California State Scenic Highway in 1971 and a National Scenic Byway in the Fall of 2005.

The scenic route links destinations such as Arnold, Markleeville, Bear Valley, Lake Alpine, Calaveras Big Trees State Park and Grover Hot Springs State Park in Calaveras and Alpine Counties. It is considered one of the most scenic drives across the Sierra Nevada mountain range. The National Scenic Byway recognition heightens awareness of the route's potential and can lead to more tourism opportunities for the area. The following goals were established for the Scenic Byway:

- Protect and enhance the intrinsic qualities of the corridor
- Provide interpretive and educational opportunities related to the corridor
- Promote tourism consistent with community goals and resource development needs
- Develop collaborative strategies among communities within and near the byway
- Develop partnerships to broaden the base of support for the highway

A full summary of the plan can be found at the CCOG website at www.calacog.org.

COORDINATION WITH INDIAN TRIBAL GOVERNMENTS

The 2010 RTP Guidelines require the RTP process to meet the Federal and State requirement to consult with and consider the interests of Indian Tribal Governments in the development of transportation plans and programs, including funding of transportation projects accessing tribal lands through State and local transportation programs. Table 1.9 provides contact information for the official tribal interests in Calaveras County.

TABLE 1.9 CALAVERAS COUNTY FEDERALLY RECOGNIZED TRIBAL GOVERNMENTS REGIONAL TRANSPORTATION PLAN CONTACT

Tribal Government	Contact Person	Location	Telephone
California Valley Miwok Tribe (CVMT)	Silvia Burley, Chairperson	10601 N. Escondido Pl. Stockton, CA 95212	(209) 931–4567 FAX (209) 931-4333

Source: American Tribal Heritage Commission; Caltrans

Silvia Burley was contacted by telephone to discuss tribal transportation interests within Calaveras County. Silvia expressed interest in the RTP process and was complimentary about the initial contact. Silvia provided an email and a formal letter (dated December 20, 2011) updating the status of the Miwok Tribe and their interests in the 2012 RTP. The following summarizes the information provided by Silvia concerning the federally recognized California Valley Miwok Tribe:

- The Miwok Tribe (CVMT) is a federally recognized tribe that is located in San Joaquin County. Being a landless Miwok Tribe, CVMT oversees 10 counties and Calaveras County is included in those 10 counties.

- Prior to 2001, CVMT was known as the Sheep Ranch Rancheria of Me-Wuk Indians of California. On June 7th, 2001, the tribe officially changed its name to the California Valley Miwok Tribe and has been listed in the federal register as the California Valley Miwok Tribe.

- Information received from Silvia Burley indicates the Calaveras Band of Miwok Indians reside on 80 acres of land held in trust by the US Department of the Interior- Bureau of Indian Affairs and is located in Calaveras County, CA. Silvia provided the name of an interested party for the California Band of Miwok Indians that resides in Calaveras County. Her name is *Debra Grime, 579 Bald Mountain Road West Point, CA 95255 Telephone: (209) 293-1218*

Silvia provided information on two issues for the 2012 RTP. First, the tribe is interested in the status of a proposed transportation improvement known as the "Mountain Ranch Road Turnout Project" located on Mountain Ranch Road in Calaveras County. The tribe initially expressed concern noting that some tribal landowners had expressed opposition to the project due to its location and potential impacts to the tribal land owners.

The project proposes construction of an uphill and downhill turn-out on Mountain Ranch Road east of lower Michel Road. The project is included as a priority project for the Road Impact Mitigation (RIM) Fee Program for the County and is funded by the High Risk Road (HR3) program to address safety concerns on Mountain Ranch Road involving congestion and lack of passing opportunities. The project is included in the County's 2008 – 2011 Capital Improvement Program (CIP). During public meetings on the CIP there was a high degree of support by area residents for this type of safety improvement. There is still opportunity for further review and comment by the Tribe as the 2012 RTP and recommended RTP projects undergoes public review and comment as part of the general approval process. The Draft RTP will be released in the summer of 2012 and review and comment opportunities will be provided at regularly scheduled meetings of the Calaveras County Board of Supervisors, City of Angels City Council meetings, and the CCOG Board meetings.

The second issue involves tribal representation. In 2010, the California Valley Miwok Tribe noticed that the California Native American Heritage Commission (NAHC) added an individual on as a representative of the California Valley Miwok Tribe (formerly known as Sheep Ranch Rancheria) without formal consent of the Tribe. This oversight raised questions about the overall process for selecting representatives for the Miwok Tribe.

To understand the process better, the California Valley Miwok Tribe requested a copy of the NAHC Native List that is sent out to Caltrans and other organizations. Upon receipt, the tribe states that they immediately called NAHC about their policies and procedures for adding an individual on the NAHC Native List under the name of a federally recognized tribe. As a result of the inquiry, and a subsequent meeting with NAHC staff in January 2012, the issue has been resolved and no appointments will be made without knowledge and consent of the Tribe. The Tribe has requested a copy of NAHC Policies and

Procedures (Protocol) for their records. The Tribe believes that appropriate representation will result in their interests in transportation improvements being expressed and that desired outcomes for tribal members in Calaveras County will be included and correctly represented in the RTP planning process.

COORDINATION WITH RESOURCE AGENCIES

The 2010 RTP Guidelines require that an MPO/RTPA shall coordinate and consult with resource agencies on data or information sharing, if available. The purpose is to obtain timely response and comments to the RTP, its programs and projects. For the Calaveras 2012 RTP, two avenues were used to inform the US Fish and Wildlife, the U.S. Forest Service, the Bureau of Land Management (BLM), Bureau of Reclamation, and the Calaveras County Water District (CCWD) about the RTP process. First, notices were sent to each department informing them of the update process and providing information on the public involvement schedule as well as the location of the electronic transportation survey on the CCOG's website. In addition, the Draft RTP was made available to these agencies for review and comment as part of the environmental documentation and public hearing process. Comments received were summarized and where appropriate, incorporated into the Draft RTP document and/or environmental document for presentation to the CCOG.

COORDINATION WITH STAKEHOLDERS

In preparation for the two public workshops held on the 2012 RTP process and project lists, formal notification was made to various stakeholder groups within the County. These stakeholders were informed about the workshop, process for obtaining their input, and afforded an opportunity to respond electronically through the on-line transportation survey. The contacts included:

- Adjacent counties
- Aviation interests
- Bike and Pedestrian interests
- Business community
- Caltrans
- Commercial interests
- Education entities
- Major employers
- Transportation organizations
- Tribal Governments
- Various County organizations

PUBLIC PARTICIPATION PLAN

The Calaveras Council of Governments (CCOG) in cooperation with the County of Calaveras and City of Angels developed a Public Participation Plan for the 2012 Regional Transportation Plan update. The plan is the foundation for transportation planning decisions in the County and was developed to provide reasonable opportunities for comments on the contents of the transportation plan. A copy of the "Public Participation Plan for the 2012 Regional Transportation Plan Update" is provided in Appendix 1A. Public participation activities included the following:

- Outreach materials and media coordination
- Community workshops
- Tribal consultation
- Project website
- Draft RTP and Environmental document review and comment period
- Public Hearing to adopt

PUBLIC WORKSHOPS

The CCOG began the process of updating the Calaveras County RTP in July 2011. The updated 2012 plan focuses on transportation programs and projects that are needed throughout the County over the next 20 years.

The initial kick-off meeting for the 2012 RTP Update was held on August 8, 2011 at the County Library in San Andreas. CCOG staff and representatives from Calaveras County, the City of Angels, and Caltrans District 10 were present to review the proposed project scope, work products, and timeline. The study was guided by a Technical Advisory Committee (TAC) comprised of CCOG staff, County staff, City staff, and Caltrans. Fehr & Peers was contracted by the CCOG to manage the update and prepare both the Draft and Final RTP documents. The Consultant project team also includes De Novo Planning Partners responsible for the development of the environmental documentation, and AIM Consulting responsible for public outreach and community involvement.

In order to provide the community and project stakeholders with the opportunity to recommend and discuss ideas for transportation improvements in the County, two (2) public workshops were scheduled (one in San Andreas and one in the City of Angels). Each workshop included a short presentation describing the RTP planning process, a discussion of current transportation priorities identified in previous planning documents, and information on how residents can propose new projects or solutions to transportation issues. Representatives from the CCOG, Consultant team, and TAC were available to answer questions and receive input throughout the workshops. Comments received as part of the public participation process helped form the basis of the Draft RTP. The final "Community Workshop and Community Survey Summary Report" is attached as Appendix 1B.

PRESENTATION TO THE CCOG

A progress report was presented to the CCOG on May 7, 2012 at their regular board meeting. The preliminary work on fiscal constraint and level of service (LOS) analysis was presented by the consultant. A full Draft RTP was submitted to the CCOG for public review and comment on September 5, 2012. The review and public hearing did not generate additional comments for inclusion in the final RTP.

REPORT ORGANIZATION

This report is divided into six Chapters plus appendices as described below:

CHAPTER 1 - Introduction – Describes demographic changes that have occurred in Calaveras County since the 2007 RTP update and the new requirements contained in the 2010 RTP Guidelines. The chapter also includes a discussion of the public process used during plan development and preparation.

CHAPTER 2 - Assessment of Needs – Identifies the existing and future deficiencies of the Calaveras County transportation system by mode. It includes a description of the methodology used to develop future traffic projections and to analyze traffic operations and LOS under existing and future conditions.

CHAPTER 3 - Policy Element – Contains the goals, objectives, and policies that address transportation issues by mode. Statewide and regional issues are discussed based on the financial constraints facing the County and City and the goals and vision of the region. The policy element addresses short-term (0-10 year) and long-term (11-25 year) objectives and includes a summary of key performance measures to evaluate RTP funding alternatives.

CHAPTER 4 - Action Element – Describes the State and regional transportation planning processes, as well as the process undertaken to evaluate various improvement options. The Action Element will summarize plan assumptions, past accomplishments, modal alternatives, and the purpose, need, and implementation timeframe of recommended projects. Specific improvements are identified by mode for short-range and long-range capital programs designed to meet the anticipated needs of the County's and City's regional circulation system. Project cost estimates and sponsoring agencies are also identified.

CHAPTER 5 - Financial Element – Lists the costs, revenues, deficits/surpluses for each transportation mode. The 2010 RTP must be financially constrained through 2035. This means that all project costs must be covered by the anticipated revenues through this period. Projects that are needed and desired, but for which no revenues have not been reasonably identified are placed on the "unconstrained" list. Many of these projects began as recommendations as long-term projects, but after a fiscal constraint analysis, actual funding was not deemed available through 2035. These projects can be elevated to implementation status through future RTP updates, or at the decision of the CCOG, the County, and/or the City of Angels.

The Financial Element shows consistency with the STIP fund estimate adopted by the California Transportation Commission (CTC); the RTP goals, policies, and objectives; and the projects included in the Regional Transportation Improvement Plan (RTIP) and Interregional Transportation Improvement Plan (ITIP) for Calaveras County.

CHAPTER 6 - Environmental Review – Describes the environmental review processes and procedures, the consultation process, and an assessment of the program level environmental impacts of the transportation plan. All notifications to the State Clearing House are documented.

APPENDICES – The appendices include additional information and technical data including a complete public involvement plan and process used by the CCOG to prepare the 2012 RTP and other planning documents, LOS analysis and methodology, and complete list of recommended RTP projects and/or programs.

CHAPTER 2: ASSESSMENT OF NEEDS

The assessment of needs identifies existing and future needs and potential operational deficiencies of the Calaveras County transportation system that have regional, State, and local significance. The information presented in this chapter provides the basis for improvements proposed in the Action Element (Chapter 4) and the funding alternatives discussed in Chapter 5.

TRANSPORTATION SYSTEM NEEDS

Existing and future transportation needs stem from travel demand, which is influenced by socioeconomic conditions, including population, employment, number of households, and the intensity and location of development and employment centers. Sources reviewed for this discussion include the 2000 Census, 2010 Census, 2005 -2009 American Community Survey, 2010 population estimates from the California Department of Finance (DOF), 2010 employment data from the California Employment Development Department (EDD), the 1996 Calaveras County General Plan, the City of Angel's General Plan, and data provided by the CCOG, Calaveras County Department of Public Works, and the City of Angels.

As discussed previously, Calaveras County has experienced relatively slow population growth (approximately 1.4 percent per year) due to the County's rural nature and lack of expanding employment opportunities. However, population information/data does not reflect the thousands of visitors and tourists that use the transportation system to travel to and through the County each year. As the Calaveras region grows, the over 65 population is expected to increase as a percentage of the total population. To the extent that seniors rely on transit or community assistance to meet their travel needs, regional planning should reflect these changes.

Transportation is a means to an end. Transportation connects the population with those goods, services, and activities that influence quality of life and economic well-being. Availability of transportation alternatives affects one's ability to live independently. The keys to successfully meeting the mobility needs of a changing population include effective implementation of safe roadways, improved transit and paratransit services, and the provision of "safety net" transportation alternatives all aimed at promoting basic life mobility needs.

ROADWAY SYSTEM

The following information summarizes the existing road system in Calaveras County:

State Highways

Calaveras County is served by four State highways: State Route 4 (SR4) provides an east-west route from San Joaquin County to the high Sierra and Bear Valley ski resort; SR 49 is the major north-south route linking the communities of Mokelumne Hill, San Andreas, and Angels Camp to Amador and Tuolumne County; SR 26 traverses the northwest corner of Calaveras County between the San Joaquin County line near Rancho Calaveras and the Amador County line near West Point; and SR 12 travels through the

western portion of the County and serves as a connector to San Joaquin County, and the communities of Wallace, Burson, Valley Springs, and San Andreas.

Local Streets and Roads

The roadway system in Calaveras County totals approximately 1,059 maintained miles. The entire system employs only five traffic signals countywide to meter traffic. Stop signs are typically used to control side street approaches to arterials and collectors. The distribution of government responsibility for maintaining the roads is shown in Table 2.1

TABLE 2.1 MAINTAINED ROAD MILES

State Highways	City Roads	County Roads	Federal Agencies	State Parks	Total
149.4	32.2	689.6	128	60	1,059

Source: Caltrans District 10; Highway Performance Monitoring System; Statewide Integrated Traffic Records System (SWITRS)

Road Classifications

The following roadway functional classifications are used in Calaveras County. Figure 2.1 shows the functional classification of the major facilities in the County.

- *Minor Arterial* – Minor arterials allow through traffic to flow at relatively high speeds with minimum interference and few access points. All State routes are classified as minor arterials (SR 4, SR 12, SR 26, and SR 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 another via connections to the minor arterial system. Examples include Murphys Grade Road, Parrotts Ferry Road, and O'Byrnes Ferry Road. These routes are important to inter-county travel, economic development and goods movement between Calaveras County and Tuolumne County.

- *Minor Collectors* – Minor collectors move traffic from traffic generators such as residential areas or commercial centers, to major collectors or minor arterials. Examples include Copper Cove Drive, Ospital Road, and Moran Road.

- *Local Roads* – Local roads serve travel over relatively short distances to access local destinations and activity centers. This classification includes all roads not classified as minor arterial, major collector or minor collector.

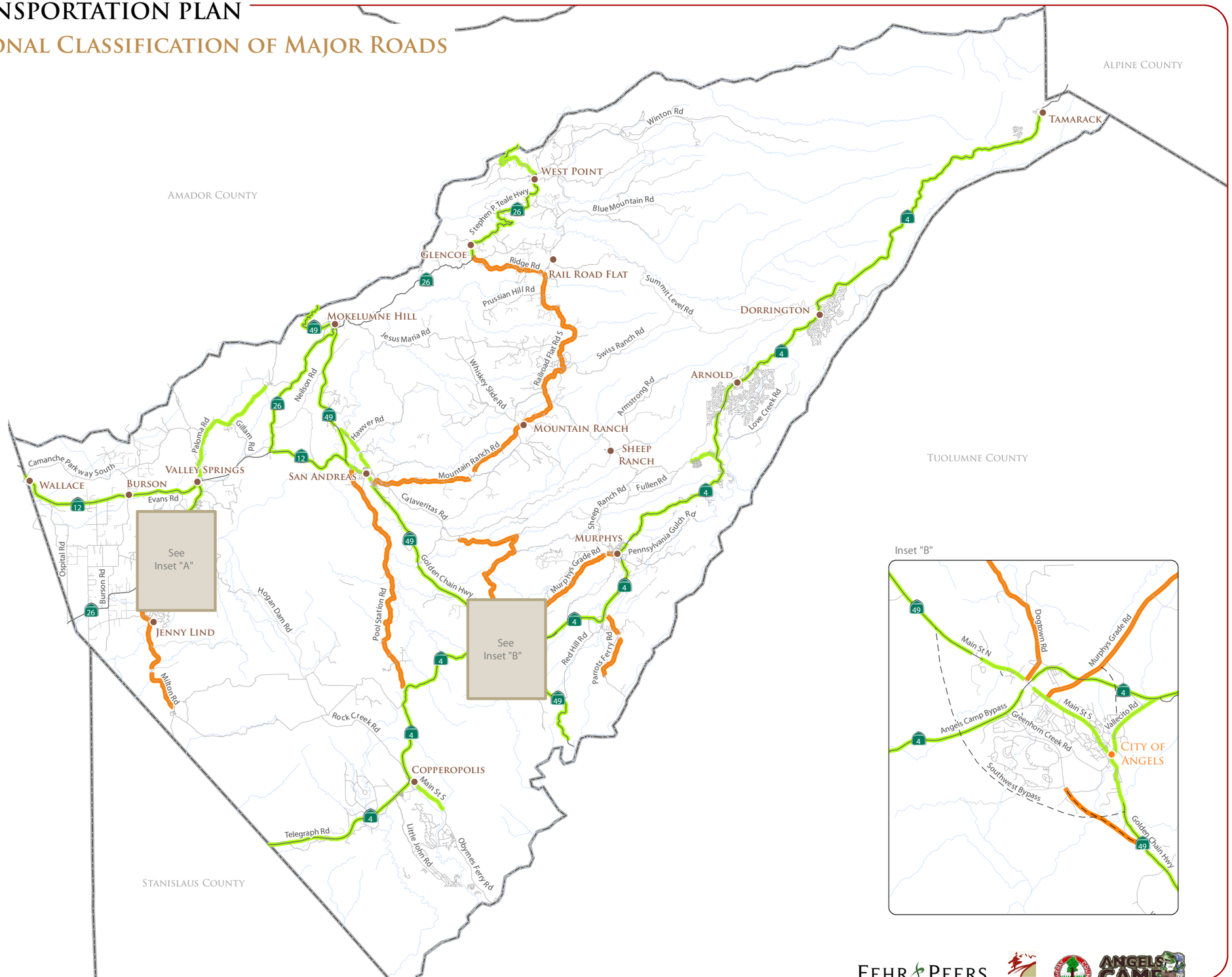
- *Legacy Streets* – Legacy streets designates streets that are historical in nature and cannot be significantly modified without destroying their historical character. These streets have specific design and usage guidelines governing right-of-way (ROW), traffic flow, and parking.

- *Scenic Highways (State and Local)* – Scenic roadways provide travelers and visitors visual corridors that showcase the beauty of the County and its natural amenities. A State designated scenic

highway is designated along SR 4 from Arnold to SR 89 in Alpine County. This stretch of highway is known as the Ebbetts Pass Highway. County designated scenic highways exist on SR 4 between the Stanislaus County line and Angels Camp; SR 4 between City of Angels and Murphys and along SR 49.

2012 REGIONAL TRANSPORTATION PLAN

Figure 2.1: Functional Classification of Major Roads



LEGEND

- City of Angels
- Town
- Planned Roadway

Functional Classification

- Minor Arterial
- Major Collector
- County Boundary

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- *National Scenic Byways* – In the fall of 2005, the Ebbetts Pass State Scenic Highway (58 miles between Arnold and Markleeville in Alpine County) received National Scenic Byway status. The designation has brought increased marketing exposure, access to grants, and a focused collaborative approach to preserving and improving the assets of the corridor. The 2004 Corridor Management Plan for the Ebbetts Pass National Scenic Byway identified eight goals for the byway. These goals ranged from protecting and enhancing the intrinsic qualities of the corridor to designing and implementing a "living guidebook" website to assist travelers before they tour the area. In October 2011 The Ebbetts Pass Scenic Byway Association was awarded a national Scenic Byway Grant to update the 2004 CMP. The CMP update will occur in FY 2012/13.

- *Federal Aid Secondary Roads* – This classification stems from the 1944 National System of Interstate Highways that included a federal-aid secondary system of principal, secondary, and feeder roads. The following roads were constructed with federal funds as part of this federal secondary system:

    - O'Byrnes Ferry Road – Extends north to south through Copperopolis connecting SR 4 to SR 108 in Tuolumne County. Proposed development projects in Copperopolis and Tuolumne County will impact this road. The TCTC will be engaged directly and early in the planning process for these facilities.

    - Milton Road – Extends north to south connecting SR 26 near Valley Springs and SR 4 in San Joaquin County. This road also serves as primary access to the Calaveras County Integrated Waste Management site. Additional development in Valley Springs and increased employment opportunities in San Joaquin County make this road regionally significant.

    - Parrotts Ferry Road – Connects the communities along SR 4 to Tuolumne County, and provides the most direct access to the City of Sonora and Columbia College from the communities east of Murphys. The TCTC will be engaged directly and early in the planning process for this facility including the transit connection to Columbia College.

    - Rail Road Flat Road – Extends from SR 26 just south of West Point to the intersection of Mountain Ranch Road and Sheep Ranch Road. This road provides a needed connection to the State highway system for remote central county communities.

Local Roads of Regional Significance

The 2012 RTP carried forward the list of improvement projects for "local roads of regional significance" that was developed by the Calaveras County Department of Public Works. The criteria used for selection required each local roadway to connect major communities, provide parallel capacity for major transportation routes, or serve as emergency relief in case of major system emergencies (e.g., accidents, landslides, fires, flooding, etc.) The list includes:

- Avery Sheep Ranch Road
- Burson Road
- Jenny Lind Road
- Milton Road
- Moran Road
- Mountain Ranch Road
- Parrotts Ferry Road
- Murphys Grade Road
- Paloma Road
- Pool Station Road
- Rail Road Flat Road
- Ridge Road
- Sheep Ranch Road

TRANSPORTATION SYSTEMS MAINTENANCE

Streets and highways Code Section 164.6 requires Caltrans to prepare a five-year maintenance plan that addresses the maintenance needs of the State Highway System (SHS). The 2011 Five-Year Maintenance Plan addresses the current maintenance needs and activities for the SHS. Information for individual districts and/or counties was not available at the time of this report preparation.

$412 billion in annual funding is needed statewide for major maintenance activities in the State for pavement, bridge, and drainage

Caltrans is responsible for maintaining approximately 50,000 lane miles of pavement. Caltrans has met the goal for pavement maintenance to repair 2,700 lane miles annually. The goal in the 2009 Maintenance Plan was reached by reducing the backlog of roads in need of maintenance by 25 percent, from 5,941 lane miles in FY 2008/09 to 4,463 lane miles in FY 2010/11. This accomplishment was aided by an additional $57 million authorized in the American Reinvestment and Recovery Act (ARRA) funding. The Maintenance Plan was most recently updated in 2011 and estimates annual funding levels required for major maintenance for pavement, bridge, and drainage is unchanged at $412 million.

The Governor's 2007 Strategic Growth Plan proposes to divert a quarter of excise tax and weight fee revenues to debt service on revenue bonds to support non-maintenance and non-rehabilitation activities for 30 years beginning in 2015. Because these revenues represent the primary funding source for highway maintenance and rehabilitation, the plan could result in the State falling further behind in the maintenance and rehabilitation of the SHS.

Caltrans District 10 reports there are 3,521 lane miles in District 10 and 1,731 (49%) of these are considered stressed. Calaveras County has approximately 182 lane miles that fall into the stressed category.

Local Streets and Roads Maintenance Needs

In 2007-08, the County Engineers Association of California, in conjunction with Caltrans, conducted a comprehensive statewide study of California's local street and road system. The study's objective was to assess the condition of the local system to determine four things: 1) What are the pavement conditions of local streets and roads? 2) What will it cost to bring pavements to a Best Management Practices (BMP) or

most cost-effective condition? 3) What are the needs for the essential components to a functioning system? and 4) Is there a funding shortfall and how can it be reduced or eliminated?

The study surveyed all 58 California counties and 478 cities. The response rate was 93 percent, and because the majority of the data came from recognized pavement management systems, the accuracy of the data was considered high. The results showed that California's local streets and roads are in critical condition. On a scale of zero (failed) to 100 (excellent) the statewide average pavement conditions index (PCI) is 68, which is considered "at risk category." Without additional funding, the PCI is projected to decrease to 58 within 10 years. The total maintenance cost needs in the State is approximately $67.6 billion over 10 years. The amount needed to bring the PCI to an acceptable level is approximately $51.7 billion. Based on the study findings, the funding need for local streets and roads within Calaveras County to bring them to an acceptable PCI is approximately **$340 million** over 10 years.

TRANSPORTATION CONCEPT REPORTS (TCRs)

A Transportation Concept Report (TCR) is a system planning document and tool which includes an analysis of a State route. It establishes a 20-year concept that is consistent with Caltrans's goals by the District (District 10) as set forth in the District System Management Plan (DSMP). Each TCR identifies needs for the facility. If local funding were available to implement the proposed improvements, projects could be conceived and included in the RTP. Capacity projects for State Highways, as identified in TCRs, would help keep facilities operating at the desired LOS.

Operating conditions for each corridor are projected for 10-year and 20-year horizons. Beyond the 20-year planning period, each TCR identifies the Ultimate Transportation Corridor (UTC) to ensure that adequate right-of-way is preserved for future SHS projects. TCR reports are prepared by Caltrans staff in cooperation with the regional and local agencies, which have jurisdiction within this corridor. The objective of a TCR is to have local, regional, and state consensus on route or corridor concepts, improvement priorities, and planning strategies. These documents provide concept information only and do not determine policy. TCRs are updated as needed, as conditions change, or as new information is obtained. Caltrans has updated TCRs for SR 4, SR 26 and SR 49. The TCR for SR 26 is coming. The TCRs-D10 Summary Data with proposed changes to each corridor are included in Appendix 2A.

SR 4 Transportation Concept Report (February 2002)

State Route 4 (SR 4) is an east-west route beginning at I-80 near Hercules in Contra Costa County and ending at SR 89 south of Markleeville in Alpine County. The route is functionally classified as a Rural Minor Arterial in Calaveras County and for the purposes of the TCR the route is divided into eight segments within Calaveras County. SR 4 is on the Interregional Road System (IRRS) but is not designated a high emphasis or focus route. SR 4 is on the Scenic Highway System from SR 49 junction in Angels Camp and west to the end of the route at SR 80. SR 4 is also on the Forest Highway System from Murphys and east to the end of SR 89.

East of Stockton, SR 4 is used by commuters between Calaveras County and San Joaquin County, and provides visitor access to numerous Mother Lode recreational areas such as the New Melones Lake, Big

Trees State Park, and Bear Valley. In addition to recreation, SR 4 serves as a major access route for lumber and ranching industries in Calaveras County.

The concept Level of Service (LOS) for the 20-year planning horizon for SR 4 is LOS D in the urbanized portions through San Joaquin County and LOS C for the remainder of the route through Stanislaus, Calaveras, and Alpine counties. SR 4 is currently a two-lane expressway from the Stanislaus/Calaveras County Line to 4 miles west of Hunt Road at PM R9.90, from PM R21.2 to PM 23.4, and from PM R47.0 in Calaveras County to PM 3.17 in Alpine County. The remaining segments are two-lane conventional. At the present growth predictions, the concept of a four-lane facility would be needed to satisfy the needs of future growth with consideration of alternatives, (i.e., additional lanes, passing lanes, wider shoulders, left-turn lanes, roundabouts, increased transit use, more bike routes, and use of ITS. With proposed improvements, all segments will operate at LOS A/B by 2015 (2008 SR 4 CSMP).

The UTC for SR 4 is a continuous four-lane facility from the Stanislaus County Line to the two-lane expressway in Dorrington, a two-lane expressway from Dorrington to east of Mt. Reba Road, a two-lane conventional highway with wider shoulders from east of Mt. Reba Road to Lake Alpine in Alpine County. Due to the highly scenic qualities of the corridor and to the significant impact widening would have upon the communities, passing lanes, wider shoulders, left-turn lanes, and other operational improvements including ITS can be used to achieve operational improvements rather than widening (2008 SR 4 CSMP).

SR 26 Transportation Concept Report (June 2003 – To be updated soon)

State Route 26 (SR 26) is functionally classified as a Minor Arterial for the entire route except in Stockton. The route is not part of the IRRS, National Highway System (NHS), or Scenic Highway system. The route primarily serves interregional travel and provides access to New Hogan Reservoir, Rancho Calaveras and La Contenta Residential developments near Valley Springs. The route also serves the smaller communities of Mokelumne Hill and West Point in Calaveras County. The concept LOS for SR 26 for the 20-year planning horizon is LOS D.

The route is divided into five segments in Calaveras County. The current facility is classified as two-lane conventional. In order to continue to accommodate growth in the County and to maintain the Concept LOS, some segments will require the addition of passing lanes to improve operating conditions. Passing lanes on two-lane rural highways have two main functions. First, they help reduce delays at specific bottleneck locations such as steep hills. Second, they improve traffic flow by breaking up vehicle platoons and allowing for safe passing over substantial lengths of the highway.

Without the proposed improvements in the TCR, LOS ranges from B to E. With proposed improvements, all segments will operate at LOS D. The UTC for SR 26 is a continuous two-lane conventional highway except in Stockton and the Rancho Calaveras/Valley Springs. The UTC is a five-lane (two-way center turn lane) conventional highway in these areas.

SR 12 Transportation Concept Report (January 2012)

SR 12 serves four communities in Calaveras including Wallace, Burson, Valley Springs, and San Andreas. The route has a significant role in the movement of goods and services in Calaveras County. SR 12 lacks truck advisory segments usually found on state highways. Although SR 12 is a Class III bicycle route, narrow to non-existent shoulders and non-standard lane widths inhibit bicycle use. The concept LOS is C and the UTC is 4-lane expressway.

SR 49 Transportation Concept Report (June 2010)

SR 49 is a significant interregional connector for travelers, visitors, and for goods movement in Calaveras County. Major issues along the corridor include safety, mobility, and capacity. The mobility challenges identified in the TCR are reflective of issues identified in the RTP and include:

- Congestion in local communities due to on-street parking
- Lack of a continuous 4-lane facility with adequate shoulders
- Lack of parallel routes with adequate capacity
- Limited availability of transit for dispersed residents
- Land use constraints at the Calaveras airport
- Lack of a consistent network of bike and pedestrian facilities

The route is divided into eight segments in Calaveras County. The Concept LOS in Calaveras County is LOS C which provides stable traffic flow and minimal delays. The lowest traffic volumes occur between SR 12 and SR 26. The highest occur between Mountain Ranch Road and SR 12. The concept facility is classified as a two-lane conventional highway. The UTC is a four-lane conventional highway.

ROADWAY OPERATIONS – AVERAGE DAILY PEAK HOUR PEAK DIRECTION CONDITIONS

Figure 2.2 displays the existing average PM Peak Hour volumes and LOS for the peak direction on major roadways within the County. Traffic counts on State highways are shown in Appendix 2B. Counts for the local road system were provided by the County Department of Public Works and the City of Angels.

Level of Service Designations

Level of Service (LOS) is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Six LOS options are defined for each type of facility that has analysis procedures available in the *Highway Capacity Manual* (HCM) 2010. Letters designate each LOS from A to F, with LOS A representing the best operating conditions and LOS F the worst. Safety is addressed through other measures.

Table 2.2 below describes LOS for two-lane conventional highways and Table 2.3 highlights LOS for two and four-lane freeways and expressways.

TABLE 2.2 TWO-LANE CONVENTIONAL HIGHWAYS		
LOS	**Demand/Capacity Ratio**	**Traffic Description**
A	<0.34	Free flow, light
B	<0.45	Free flow to stable flow, moderate
C	0.46-0.65	Stable flow, moderate volumes, freedom to maneuver noticeably restricted
D	0.66-0.85	Approaches unstable flow, heavy volumes, very limited freedom to maneuver
E	0.86-1.00	Extremely unstable flow, maneuverability and psychological comfort extremely poor
F	>1.00	Forced delay measured in average flow travel speed (MPH). Signalized segments experience delays >60.0 seconds/vehicle
Source: *Highway Capacity Manual 2010*		

TABLE 2.3 TWO AND FOUR LANE FREEWAYS/EXPRESSWAYS LEVEL OF SERVICE DESCRIPTION		
LOS	**Demand/Capacity Ratio**	**Description**
A	<.34	Free flow
B	0.35-0.52	Free to stable flow, light to moderate volumes
C	0.53-0.69	Stable flow, moderate volumes, freedom to maneuver noticeably restricted
D	0.70-0.92	Approaches unstable flow, heavy volumes, very limited freedom to maneuver
E	0.93-1.00	Extremely unstable flow, maneuverability and psychological comfort extremely poor
"F0"	1.01-1.25	Forced flow, heavy congestion, long queues from behind breakdown points, stop and go
"F1"	1.26-1.35	Very heavy congestion, very long queues
"F2"	1.36-1.45	Extremely heavy congestion, longer queues, more numerous breakdown points, longer stop periods
"F3"	>1.46	Gridlock
Source: *Highway Capacity Manual 2010*		

Capacity Thresholds

The following information describes the development of the roadway LOS thresholds for Calaveras County. Table 2.4 provides the volume thresholds for each class of roadway.

- The roadway study segments in Calaveras County were classified into two operational categories. Rural segments were classified as highways, and urban segments were classified as arterials.

- Highways were analyzed using the Highway Capacity Manual (HCM) 2010 procedures for two-lane highways. Highways were assigned as major or minor depending on the roadway design features. Major two-lane highways have a higher percentage of heavy vehicles, more passing opportunities, and fewer access points per mile than minor two-lane highways. The directional split for major two-lane highways was assumed to be more balanced than minor two-lane highways. See Appendix 2C for technical calculations.

- Arterials were analyzed using the HIGHPLAN 2009 method. The methodology uses "percent free-flow speed" to assign LOS. Arterials were assigned as three-lane depending on whether a left turn lane or two-way left-turn lane was provided. See Appendix 2C for technical calculations.

TABLE 2.4 AVERAGE DAILY PM PEAK HOUR, PEAK DIRECTION LOS THRESHOLDS

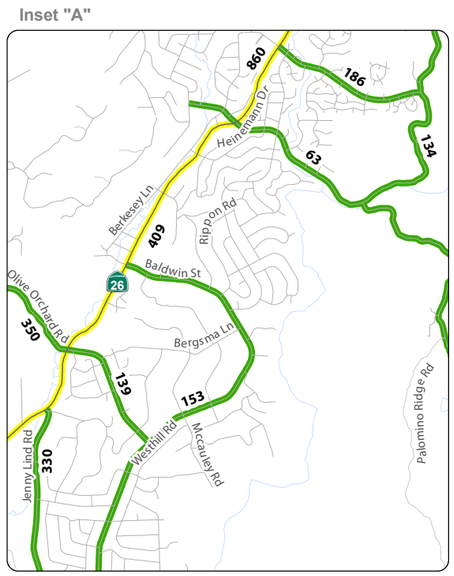
Roadway Type	Number of Lanes	LOS C	LOS D	LOS E
Minor Two-Lane Highway	2	280	655	1,330
Major Two-Lane Highway	2	350	765	1,440
Three-Lane Arterial	3	640	1,000	1,330

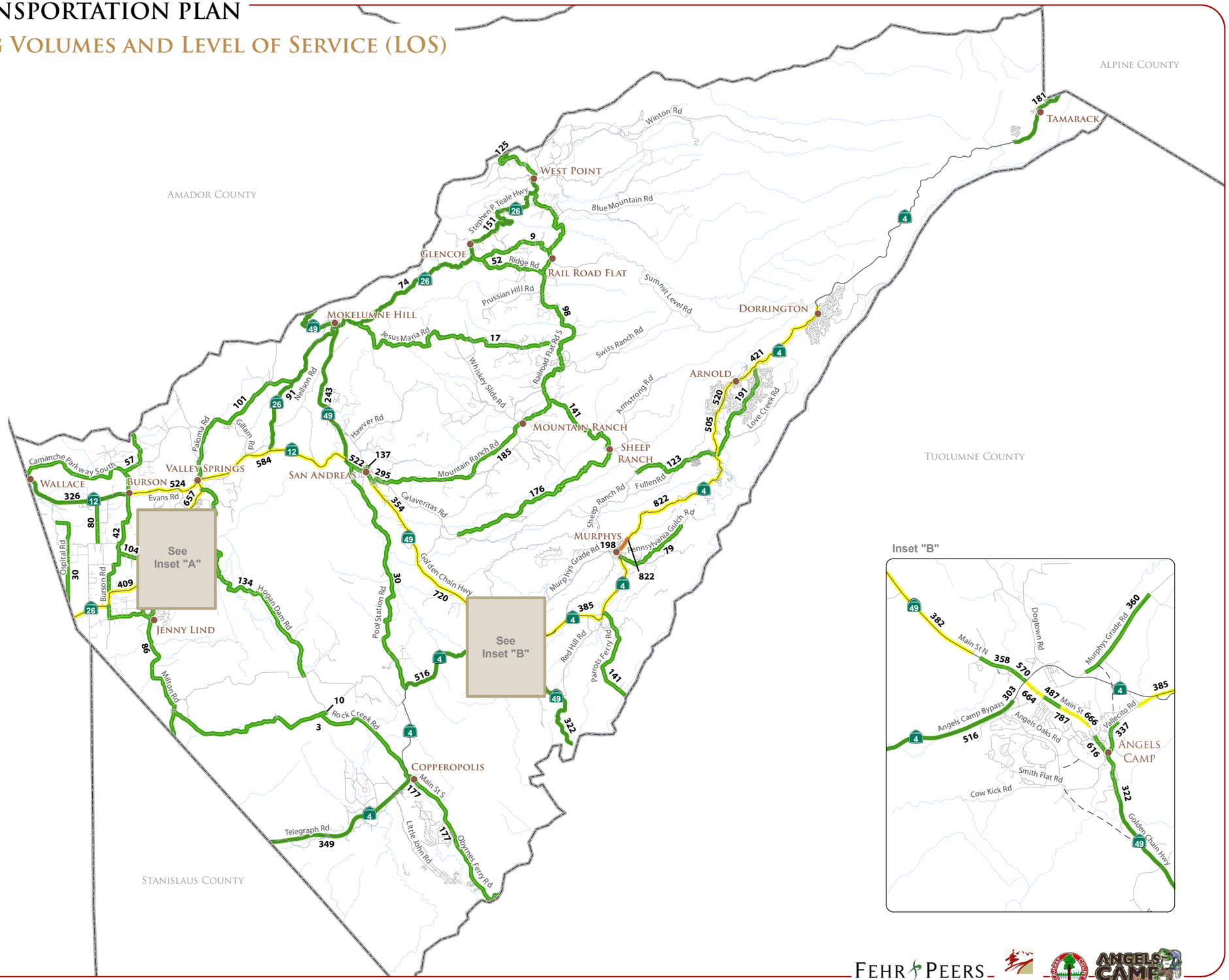
Source: HCM 2010; Florida HIGHPLAN; Fehr & Peers 2012

Table 2.5 provides a summary of the roadway segments analyzed for State highways and County and City roadways. The PM peak hour LOS for existing conditions in 2010 is shown. The volumes are peak hour, peak direction. The existing deficiencies (LOS D or greater) occur along 16 segments. All locations are on State facilities. Table 2.6 summarizes the locations. SR 4 in the Murphys area shows an LOS E between Allen Lane and Broadview Lane in downtown Murphys.

2012 REGIONAL TRANSPORTATION PLAN

Figure 2.2 Existing Volumes and Level of Service (LOS)





LEGEND

- XXX Traffic Volume
- **Level of Service**
  - C
  - D
  - E
- Planned Roadway
- Town
- County Boundary

FEHR & PEERS

Table: 2.5 Existing PM Peak Hour Volumes and LOS				
Highway/ Roadway	Segment	Operational Classification	Peak Direction	
			Volume	LOS
Pool Station Rd	SR 4 to SR 49	Major Two-Lane Highway	30	C
Gold Strike Rd	Neilsen Rd. to SR 49	Minor Two-Lane Highway	137	C
Rail Rd Flat Rd	Sheep Ranch Rd. to SR 26	Major Two-Lane Highway	98	C
Mountain Ranch Rd	SR 49 to Gold Hunter	Major Two-Lane Highway	295	C
Mountain Ranch Rd	Gold Hunter to Sheep Ranch Rd	Major Two-Lane Highway	185	C
Ridge Rd	SR 26 to Railroad Flat Rd.	Minor Two-Lane Highway	52	C
Murphy's Grade Rd	Ranch Rd. to SR 4	Three-Lane Arterial	360	C
Parrotts Ferry Rd	SR 4 to Tuolumne County Line	Major Two-Lane Highway	141	C
Milton Rd	SR 26 to Stanislaus County Line	Major Two-Lane Highway	86	C
Jenny Lind Rd	SR 26 to Milton	Minor Two-Lane Highway	127	C
Paloma Rd	SR 12 to SR 26	Minor Two-Lane Highway	101	C
Avery Sheep Ranch Rd	SR 4 to Sheep Ranch Rd.	Minor Two-Lane Highway	123	C
Big Trees Rd	SR4 to Main St. Murphy's	Major Two-Lane Highway	198	C
Burson Rd	SR26 to Cammanche Parkway South	Major Two-Lane Highway	42	C
Cammanche Parkway South	SR12 to Amador County Line	Major Two-Lane Highway	57	C
Main Street - Copperopolis	SR4 to Reed's Turnpike	Major Two-Lane Highway	177	C
Moran Rd	SR4 to SR4	Major Two-Lane Highway	191	C
O'Byrnes Ferry Rd	Reed's Turnpike to Tuolumne County Line	Major Two-Lane Highway	177	C
Sheep Ranch Rd	Mountain Ranch Rd to Main Street Murphy's	Major Two-Lane Highway	141	C
Olive OrchaRd Rd	SR26 to Burson Rd	Major Two-Lane Highway	104	C
Pettinger Rd	SR12 to Southworth Rd	Major Two-Lane Highway	80	C
Ospital Rd	Southworth Rd to San Joaquin Co. line	Major Two-Lane	30	C

		Highway		
Baldwin Street	SR26 to Milton Rd	Minor Two-Lane Highway	153	C
Felix Rd	Salt Springs Valley Rd to Rock Creek Rd	Minor Two-Lane Highway	10	C
Fricot City Rd	Fourth Crossing Rd to Sheep Ranch Rd	Minor Two-Lane Highway	176	C
Garner Place	SR26 to Baldwin Street	Minor Two-Lane Highway	139	C
Hogan Dam Rd	SR26 to Hunt Rd	Minor Two-Lane Highway	134	C
Independence Rd	RailRd Flat Rd to Ridge Rd	Minor Two-Lane Highway	9	C
Jesus Maria Rd	SR26 to Railroad Flat Rd	Minor Two-Lane Highway	17	C
Pennsylvania Gulch Rd	SR4 to END	Minor Two-Lane Highway	79	C
Rock Creek Rd	Milton Rd to SR4	Minor Two-Lane Highway	3	C
Silver Rapids Rd	Hogan Dam Rd to Heney Lane	Minor Two-Lane Highway	63	C
Vista del Lago	SR26 to Hogan Dam Rd	Minor Two-Lane Highway	186	C
Vallecito Rd	Vallecito Rd to Kurt Drive	Three-Lane Arterial	337	C
SR 4	Stanislaus Co. Line to O'Brynes Ferry Rd	Major Two-Lane Highway	349	C
SR 4	Pool Station Road to Angel Oaks Drive	Three-Lane Arterial	516	C
SR 4	Angel Oakes Drive to Foundry Lane	Three-Lane Arterial	303	C
SR 4	SR 49 to Allen Ln	Major Two-Lane Highway	385	D
SR 4	Allen Ln to Broadview Ln (Murphy's)	Major Two-Lane Highway	822	E
SR 4	Broadview Ln to Lakemont Dr (Murphy's to Arnold)	Major Two-Lane Highway	505	D
SR 4	Lakemont Dr to Henry Dr (Arnold)	Major Two-Lane Highway	520	D
SR 4	Henry Dr to Sierra Pkwy (Arnold to Dorrington)	Major Two-Lane Highway	421	D
SR 4	Skyline Dr to Alpine Co. Line (Dorrington to County Line)	Major Two-Lane Highway	181	C
SR 12	San Joaquin Co. Line to Burson Rd	Major Two-Lane Highway	326	C
SR 12	Burson Rd to SR 26	Major Two-Lane Highway	524	D
SR 12	SR 26 to SR 49	Major Two-Lane Highway	584	D

SR 26	San Joaquin Co. Line to Silver Rapids Rd	Major Two-Lane Highway	409	D
SR 26	Silver Rapids Rd to SR 12	Major Two-Lane Highway	657	D
SR 26	SR 12 to SR 49	Major Two-Lane Highway	91	C
SR 26	SR 49 to Ridge Rd	Major Two-Lane Highway	74	C
SR 26	Ridge Rd to Winton Rd	Major Two-Lane Highway	151	C
SR 26	Winton Rd to Amador Co. Line	Major Two-Lane Highway	125	C
SR 49	Amador Co. Line to SR 12	Major Two-Lane Highway	243	C
SR 49	SR 12 to Mountain Ranch Rd (San Andreas)	Three-Lane Arterial	522	C
SR 49	Mountain Ranch Rd to 4th Crossing Rd	Major Two-Lane Highway	354	D
SR 49	4th Crossing Rd to Brunner Hill Rd	Major Two-Lane Highway	382	D
SR 49	Copello Drive to Dogtown Rd	Three-Lane Arterial	358	C
SR 49	Dogtown Rd to SR 4 (W)	Three-Lane Arterial	570	C
SR 49	SR 4 (W) to Murphy's Grade Rd	Three-Lane Arterial	664	D
SR 49	Murphy's Grade Rd to Stanislaus Avenue	Three-Lane Arterial	487	C
SR 49	Stanislaus Avenue to Mark Twain Rd	Three-Lane Arterial	787	D
SR 49	Mark Twain Rd to Bret Harte Rd	Three-Lane Arterial	666	D
SR 49	Bret Harte Rd to Vallecito Rd	Three-Lane Arterial	616	C
SR 49	Vallecito Rd. to Tuolumne Co. Line	Major Two-Lane Highway	322	C

Source: Calaveras County; City of Angels; Fehr & Peers 2012

TABLE 2.6 EXISTING DEFICIENCIES				
Facility	Location	Functional Classification	PM Peak Volume	PM Peak LOS
SR 4	SR 49 to Allen Ln	Major Two-Lane Highway	385	D
SR 4	Allen Ln to Broadview Ln (Murphy's)	Major Two-Lane Highway	822	E
SR 4	Broadview Ln to Lakemont Dr (Murphy's to Arnold)	Major Two-Lane Highway	505	D
SR 4	Lakemont Dr to Henry Dr (Arnold)	Major Two-Lane Highway	520	D
SR 4	Henry Dr to Sierra Pkwy (Arnold to Dorrington)	Major Two-Lane Highway	421	D
SR 12	Burson Rd to SR 26	Major Two-Lane Highway	524	D
SR 12	SR 26 to SR 49	Major Two-Lane Highway	584	D
SR 26	San Joaquin Co. Line to Silver Rapids Rd	Major Two-Lane Highway	409	D
SR 26	Silver Rapids Rd to SR 12	Major Two-Lane Highway	657	D
SR 49	Mountain Ranch Rd to 4th Crossing Rd	Major Two-Lane Highway	354	D
SR 49	4th Crossing Rd to Brunner Hill Rd	Major Two-Lane Highway	382	D
SR 49	SR 4 (W) to Murphy's Grade Rd	Three-Lane Arterial	664	D
SR 49	Stanislaus Avenue to Mark Twain Rd	Three-Lane Arterial	787	D
SR 49	Mark Twain Rd to Bret Harte Rd	Three-Lane Arterial	666	D
Source: Fehr & Peers 2012				

The LOS results deviate from the policy and desired LOS C due to limited passing opportunities, narrow lanes and shoulders, and continued growth in volumes of recreational and commercial vehicle traffic. Note*: For this RTP, the LOS analysis focused on segment LOS during the PM Peak and did not include any intersection analysis. The intersection analysis for the City of Angels documented in their Traffic Mitigation Fee Study (2009) provides more detailed LOS at intersections within the City that may differ slightly from the segment analysis conducted for the RTP.*

Future Traffic Volumes and LOS

Table 2.7 shows the projected 2035 traffic volumes on State highways and major County roadways. Figure 2.3 provides a map of the location of these facilities. The forecasts were developed using the Calaveras County Travel Demand Model (TDM). Fehr & Peers worked with the County and City of Angels staff to review and update the Calaveras Base Year TDM as part of the RTP update. The version of the model being used for this analysis reflects Transportation Analysis Zone (TAZ) refinements in the City as part of their 2009 Traffic Impact Fee Study. The following data sources were reviewed to determine new residential and non-residential development between 2002 and 2012:

- California Department of Finance
- Info USA
- U.S. Census Bureau
- California Employment Development Department
- Calaveras County General Plan
- City of Angels General Plan

Based on the data, there has been no substantial growth in residential and non-residential development since 2002 that would change the base land use assumptions. Therefore, City and County staff directed Fehr & Peers to maintain the existing Calaveras Base Year TDM land use totals. The future roadway forecasts were developed using the cumulative version of the Calaveras TDM. It was also updated to reflect the Angels Camp TAZ refinements.

Table: 2.7 Future PM Peak Hour Volumes				
Highway/ Roadway	Segment	Operational Classification	Peak Direction	
			Volume	LOS
Pool Station Rd	SR 4 to SR 49	Major Two-Lane Highway	150	C
Gold Strike Rd	Neilsen Rd. to SR 49	Minor Two-Lane Highway	170	C
Rail Rd Flat Rd	Sheep Ranch Rd. to SR 26	Major Two-Lane Highway	140	C
Mountain Ranch Rd	SR 49 to Gold Hunter	Major Two-Lane Highway	360	D
Mountain Ranch Rd	Gold Hunter to Sheep Ranch Rd	Major Two-Lane Highway	210	C
Ridge Rd	SR 26 to Railroad Flat Rd.	Minor Two-Lane Highway	70	C
Murphy's Grade Rd	Ranch Rd. to SR 4	Three-Lane Arterial	590	C
Parrotts Ferry Rd	SR 4 to Tuolumne County Line	Major Two-Lane Highway	250	C
Milton Rd	SR 26 to Stanislaus County Line	Major Two-Lane Highway	150	C
Jenny Lind Rd	SR 26 to Milton	Minor Two-Lane Highway	330	D
Paloma Rd	SR 12 to SR 26	Minor Two-Lane Highway	130	C
Avery Sheep Ranch Rd	SR 4 to Sheep Ranch Rd.	Minor Two-Lane Highway	170	C
Big Trees Rd	SR4 to Main St. Murphy's	Major Two-Lane Highway	640	D
Burson Rd	SR26 to Cammanche Parkway South	Major Two-Lane Highway	150	C
Cammanche Parkway South	SR12 to Amador County Line	Major Two-Lane Highway	70	C
Main Street - Copperopolis	SR4 to Reed's Turnpike	Major Two-Lane Highway	280	C
Moran Rd	SR4 to SR4	Major Two-Lane Highway	260	C
O'Byrnes Ferry Rd	Reed's Turnpike to Tuolumne County Line	Major Two-Lane Highway	380	D
Sheep Ranch Rd	Mountain Ranch Rd to Main Street Murphy's	Major Two-Lane Highway	160	C
Olive OrchaRd Rd	SR26 to Burson Rd	Major Two-Lane Highway	350	C
Pettinger Rd	SR12 to Southworth Rd	Major Two-Lane Highway	250	C

Ospital Rd	Southworth Rd to San Joaquin Co. line	Major Two-Lane Highway	50	C
Baldwin Street	SR26 to Milton Rd	Minor Two-Lane Highway	300	D
Felix Rd	Salt Springs Valley Rd to Rock Creek Rd	Minor Two-Lane Highway	20	C
Fricot City Rd	Fourth Crossing Rd to Sheep Ranch Rd	Minor Two-Lane Highway	180	C
Garner Place	SR26 to Baldwin Street	Minor Two-Lane Highway	430	D
Hogan Dam Rd	SR26 to Hunt Rd	Minor Two-Lane Highway	140	C
Independence Rd	RailRd Flat Rd to Ridge Rd	Minor Two-Lane Highway	20	C
Jesus Maria Rd	SR26 to Railroad Flat Rd	Minor Two-Lane Highway	30	C
Pennsylvania Gulch Rd	SR4 to END	Minor Two-Lane Highway	80	C
Rock Creek Rd	Milton Rd to SR4	Minor Two-Lane Highway	60	C
Silver Rapids Rd	Hogan Dam Rd to Heney Lane	Minor Two-Lane Highway	120	C
Vista del Lago	SR26 to Hogan Dam Rd	Minor Two-Lane Highway	200	C
SR 4	Stanislaus Co. Line to O'Brynes Ferry Rd	Major Two-Lane Highway	720	D
SR 4	Pool Station Road to Angel Oaks Drive	Three-Lane Arterial	660	D
SR 4	Angel Oakes Drive to Foundry Lane	Three-Lane Arterial	370	C
SR 4	Vallecito Rd to Kurt Drive	Three-Lane Arterial	520	C
SR 4	SR 49 to Allen Ln	Major Two-Lane Highway	670	D
SR 4	Allen Ln to Broadview Ln (Murphy's)	Major Two-Lane Highway	1280	E
SR 4	Broadview Ln to Lakemont Dr (Murphy's to Arnold)	Major Two-Lane Highway	840	E
SR 4	Lakemont Dr to Henry Dr (Arnold)	Major Two-Lane Highway	670	D
SR 4	Henry Dr to Sierra Pkwy (Arnold to Dorrington)	Major Two-Lane Highway	510	D
SR 4	Skyline Dr to Alpine Co. Line (Dorrington to County Line)	Major Two-Lane Highway	210	C
SR 12	San Joaquin Co. Line to Burson Rd	Major Two-Lane Highway	580	D
SR 12	Burson Rd to SR 26	Major Two-Lane Highway	690	D
SR 12	SR 26 to SR 49	Major Two-Lane	800	E

		Highway		
SR 26	San Joaquin Co. Line to Silver Rapids Rd	Major Two-Lane Highway	640	D
SR 26	Silver Rapids Rd to SR 12	Major Two-Lane Highway	860	E
SR 26	SR 12 to SR 49	Major Two-Lane Highway	110	C
SR 26	SR 49 to Ridge Rd	Major Two-Lane Highway	150	C
SR 26	Ridge Rd to Winton Rd	Major Two-Lane Highway	250	C
SR 49	Amador Co. Line to SR 12	Major Two-Lane Highway	490	D
SR 49	SR 12 to Mountain Ranch Rd (San Andreas)	Three-Lane Arterial	570	C
SR 49	Mountain Ranch Rd to 4th Crossing Rd	Major Two-Lane Highway	720	D
SR 49	4th Crossing Rd to Brunner Hill Rd	Major Two-Lane Highway	720	D
SR 49	Copello Drive to Dogtown Rd	Three-Lane Arterial	620	C
SR 49	Dogtown Rd to SR 4 (W)	Three-Lane Arterial	750	D
SR 49	SR 4 (W) to Murphy's Grade Rd	Three-Lane Arterial	680	D
SR 49	Murphy's Grade Rd to Stanislaus Avenue	Three-Lane Arterial	630	C
SR 49	Stanislaus Avenue to Mark Twain Rd	Three-Lane Arterial	870	D
SR 49	Mark Twain Rd to Bret Harte Rd	Three-Lane Arterial	690	D
SR 49	Bret Harte Rd to Vallecito Rd	Three-Lane Arterial	690	D
SR 49	Vallecito Rd. to Tuolumne Co. Line	Major Two-Lane Highway	610	D

Source: Fehr & Peers 2012

Future Roadway Deficiencies

The future (2035) conditions of roadways that are forecast to have LOS D or worse are shown in Table 2.8 The list includes six local facilities (County/City roadways) that moved from acceptable LOS to the unacceptable category based on the capacity thresholds. In addition, eleven new segments on State facilities were forecast to be at LOS D or worse through 2035. The County and City have proposed several capacity projects and operational improvements at intersections to help facilitate local circulation. Funding constraints have moved a few of these projects to the "unfunded list" in Appendix M. The remaining projects from the Benefit Basin, Road Impact Mitigation (RIM), and Capital Improvement Program (CIP) will help with local circulation. The capacity improvements reflected in the TCRs will help keep these facilities at the Concept LOS as discussed previously (see Appendix 2A). Any major improvements necessary to achieve the concept facilities would be planned through the regional planning process (i.e., RTP).

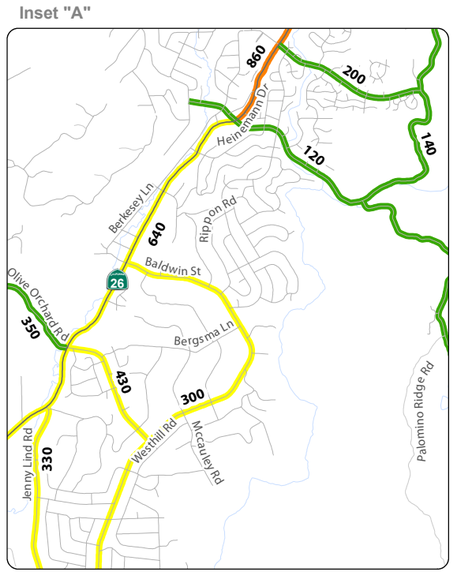
TABLE 2.8 FUTURE ROADWAY DEFICIENCIES

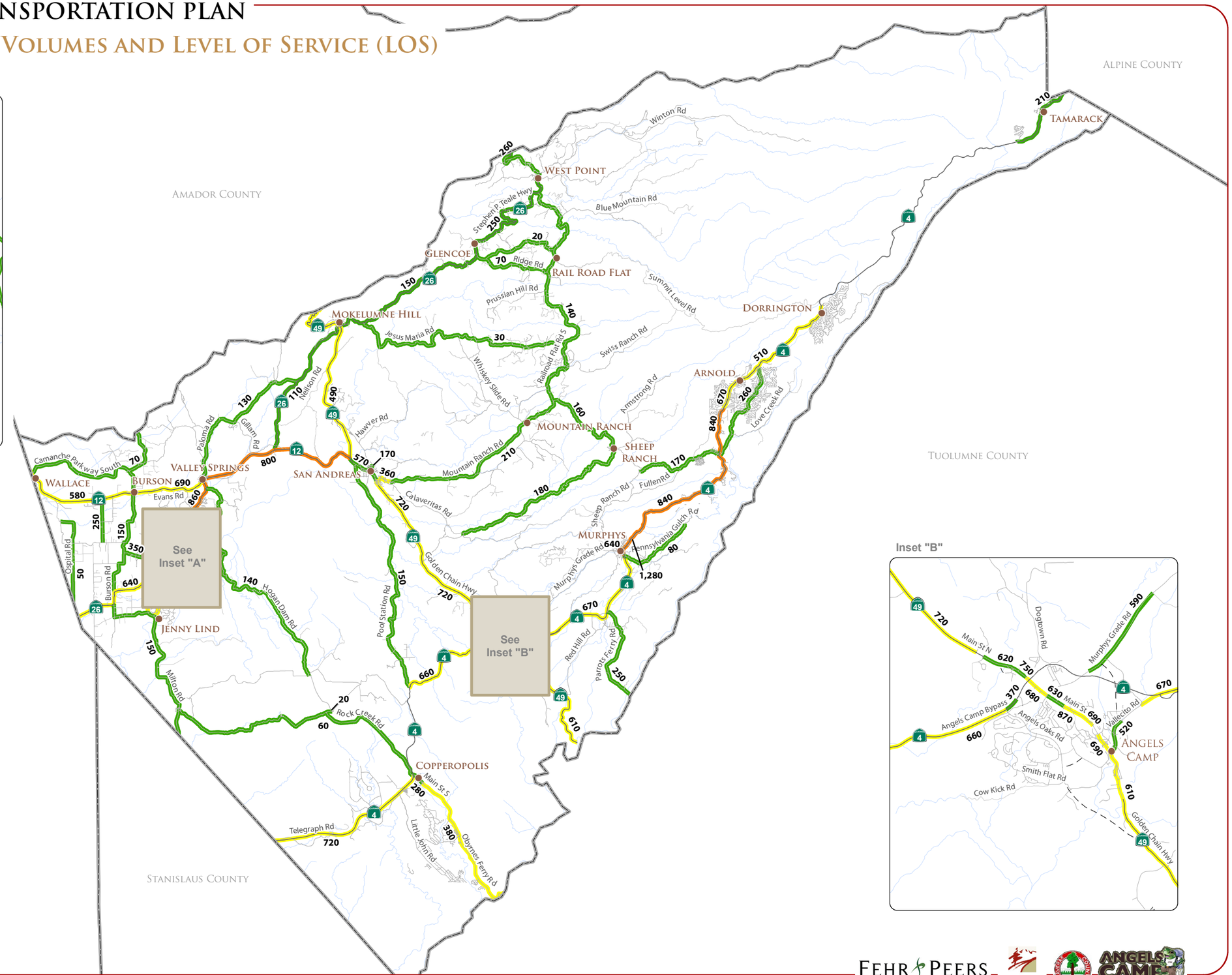
Facility	Location	Functional Classification	PM Peak Volume	PM Peak LOS
Mountain Ranch Rd	SR 49 to Gold Hunter	Major Two-Lane Highway	360	D
Jenny Lind Rd	SR 26 to Milton	Minor Two-Lane Highway	330	D
Big Trees Rd	SR4 to Main St. Murphy's	Major Two-Lane Highway	640	D
O'Byrnes Ferry Rd	Reed's Turnpike to Tuolumne County Line	Major Two-Lane Highway	380	D
Baldwin Street	SR26 to Milton Rd	Minor Two-Lane Highway	300	D
Garner Place	SR26 to Baldwin Street	Minor Two-Lane Highway	430	D
SR 4	Stanislaus Co. Line to O'Brynes Ferry Rd	Major Two-Lane Highway	720	D
SR 4	Pool Station Road to Angel Oaks Drive	Three-Lane Arterial	660	D
SR 4	SR 49 to Allen Ln	Major Two-Lane Highway	670	D
SR 4	Allen Ln to Broadview Ln (Murphy's)	Major Two-Lane Highway	1280	E
SR 4	Broadview Ln to Lakemont Dr (Murphy's to Arnold)	Major Two-Lane Highway	840	E
SR 4	Lakemont Dr to Henry Dr (Arnold)	Major Two-Lane Highway	670	D
SR 4	Henry Dr to Sierra Pkwy (Arnold to Dorrington)	Major Two-Lane Highway	510	D
SR 12	San Joaquin Co. Line to Burson Rd	Major Two-Lane Highway	580	D
SR 12	Burson Rd to SR 26	Major Two-Lane Highway	690	D
SR 12	SR 26 to SR 49	Major Two-Lane Highway	800	E
SR 26	San Joaquin Co. Line to Silver Rapids Rd	Major Two-Lane Highway	640	D
SR 26	Silver Rapids Rd to SR 12	Major Two-Lane Highway	860	E
SR 49	Amador Co. Line to SR 12	Major Two-Lane Highway	490	D
SR 49	Mountain Ranch Rd to 4th Crossing Rd	Major Two-Lane Highway	720	D
SR 49	4th Crossing Rd to Brunner Hill Rd	Major Two-Lane Highway	720	D

SR 49	Dogtown Rd to SR 4 (W)	Three-Lane Arterial	750	D
SR 49	SR 4 (W) to Murphy's Grade Rd	Three-Lane Arterial	680	D
SR 49	Stanislaus Avenue to Mark Twain Rd	Three-Lane Arterial	870	D
SR 49	Mark Twain Rd to Bret Harte Rd	Three-Lane Arterial	690	D
SR 49	Bret Harte Rd to Vallecito Rd	Three-Lane Arterial	690	D
SR 49	Vallecito Rd. to Tuolumne Co. Line	Major Two-Lane Highway	610	D
Source: Fehr & Peers 2012				

2012 REGIONAL TRANSPORTATION PLAN

Figure 2.3: Future Volumes and Level of Service (LOS)





LEGEND

- XXX Traffic Volume
- **Level of Service**
  - C
  - D
  - E
- Planned Roadway
- Town
- County Boundary

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GOODS MOVEMENT

Goods movement in Calaveras County is mostly concentrated on State highways and some county roads to reach the desired location. Table 2.9 shows the most recent (2010) truck volumes for selected State highway segments in Calaveras County. Each of the State facilities exhibit significant truck volumes at various locations. The highest volume of truck traffic occurs on SR 26 and SR 49. The highest percent of total average annual daily traffic (AADT) for the routes in Calaveras County are recorded on SR 4 and SR 49.

Caltrans records truck traffic volumes annually; however, not all count locations are updated annually. Seasonal variations and short-term truck volume increases due to construction may not be reflected. Like most rural areas, truck travel is the primary source of roadway degradation for local facilities. Therefore, truck traffic will continue to drive the need for roadway restoration and maintenance, as evidenced by the large number of reconstruction and rehabilitation projects recommended by the County and City of Angels for inclusion in the 2012 RTP.

The use of Intelligent Transportation Systems (ITS) technologies and communication software by carriers and truck terminals can help drivers plan for the most appropriate routes through the County. Fleet management centers or contracted service providers can now electronically provide route plans, regulatory clearances, and weight fees. These types of technological advances have increased the efficiency of commercial operations. In addition, high truck volumes, especially on two-lane roads such as SR 4, SR 26 and SR 49, contribute to travel delay by slowing traffic to less than desired speeds. The addition of truck climbing lanes, turn-outs and/or passing lanes helps to reduce delays on these facilities. The Action Element (Chapter 4) lists several of these types of improvements.

State Highway Truck Networks

In 1982, the Federal Highway Administration (FHWA) 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.

- STAA Truck with Single Trailer – 48 feet maximum or 53 feet maximum with kingpin-to rear-axle (KPRA) of 40 feet maximum.
- STAA Truck with Double Trailer – 28 feet 6 inch maximum for semi-trailer and trailer.
- California Legal Truck with Single Trailer – KPRA = 40 feet maximum (if 2 axles in rear); KPRA = 38 feet maximum (if 1 axle in rear); combination length = 65 feet maximum.
- California Legal Truck with Double Trailer – 28 feet 6 inch maximum for semi-trailer and trailer with combination length of 75 feet maximum or; either trailer or semi-trailer = 28 feet 6 inch maximum and the other trailer has no limit with combination length of 65 feet maximum.

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 Rd at O'Byrnes Ferry Rd near Copperopolis

- SR 4 from the SR 49 northern intersection to the Alpine County line
- SR 49 from San Andreas to the Vallecito Road southern intersection
- SR 12 from the San Joaquin County line to SR 49

TABLE 2.9 CALAVERAS COUNTY 2010 TRUCK VOLUMES ON STATE HIGHWAYS

Route	Location (PM)	Total Vehicle AADT (Percent Trucks)
SR 4	Stanislaus/Calaveras County Line (R0)	5,200 (4.5%)
	Angels Camp JCT. SR 49 (R21.09)	5,900 (4.0%)
	Angeles Camp JCT. SR 49 (R21.38)	5,800 (4.0%)
	Vallecito (26.22)	6,200 (6.6%)
	Big Trees/Tombell Rd (29.62)	8,750 (5.0%)
	Moran Rd East JCT (R42.62)	6,500 (4.0%)
	Big Trees State Park (44.5)	3,550 (7.0%)
	Meko Drive (49.5)	1,500 (8.5%)
	Calaveras / Alpine County Line	1,300 (2.0%
SR 12	Valley Springs, JCT. SR 26 South (9.9)	8,600 (6.3%)
	Toyon, JCT. SR 26 North (13.8)	7,000 (6.0%)
	San Andreas, JCT SR 49 (18.2)	7,600 (6.7%)
SR 26	Jenny Lind Rd (R4.3))	4,000 (6.8%)
	La Contenta Country Club Entrance (8.5)	10,600 (5.4%)
	Valley Springs, JCT SR 12 (10.3)	11,000 (4.3%)
	Valley Springs, JCT SR 12 (10.4)	1,850 (5.0%)
	Mokelumne Hill, JCT. SR 49 (18.1)	1,900 (4.4%)
	Ridge Rd (26.7)	1,200 (6.1%)
	Glenco, Associated Office Rd (32.6)	1,450 (5.2%)
	Winton Rd (34.7)	1,750 (4.2%)
SR 49	Tuolumne / Calaveras County Line (R0)	5,600 (4.0%)
	Angels Camp, South JCT. SR 4 (7.2)	14,500 (9.0%)
	North JCT. SR 4 (8.6)	11,000 (4.4%)
	Mountain Ranch Rd (18.7)	10,500 (5.0%)
	JCT. SR 12 West (20.4)	9,000 (6.1%)
	Mokelumne Hill, JCT. SR 26 (27.6)	4,100 (7.2%)

Source: Caltrans 2010 Truck Volumes

The 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 cannot 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, and driving on shoulders, curbs, or sidewalks. There are four California Legal Advisory Network route segments in Calaveras County:

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

As noted in previous planning documents, the STAA routes in Calaveras County are fairly dis-continuous. For example, an STAA size truck is unable to travel from Stockton to Angels Camp on SR 4. Although the new SR 4 Bypass will be designed to meet STAA requirements, the entire length of SR 4 in Calaveras County will not be on the STAA network.

PUBLIC TRANSPORTATION

Public transportation has always played an important role in Calaveras County. Prior to 1999, demand-response transit services were available in Calaveras County through the Human Resources Council under the name Calaveras Stagecoach. In 1999, the CCOG initiated six deviated fixed-routes in addition to Dial-A-Ride service as Calaveras Transit. The service was provided through a private contractor. In 2004, the County Public Works Department began management of the Calaveras Transit program. The County contracts with Paratransit Services for daily operations of the system. Per the existing contract which extends through 2015, Paratransit Services is responsible for the day-to-day operation of the transit system and the County is responsible for maintenance, the provision of vehicles, radio equipment, and fuel. Funds for Calaveras Transit are allocated by the CCOG.

Existing Route Structure

As of September 1, 2012, Calaveras Transit currently operates five deviated fixed-routes generally between 5:00 a.m. and 8:00 p.m. Monday through Friday, using a maximum of five buses during peak hours. A map of Calaveras Transit is shown in Figure 2.4. Buses will deviate up to three-quarters of a mile from the published route alignment with advance notice for free curbside pickup. To comply with ADA requirements, this service is provided only for elderly (55+) and persons with disabilities. No additional or premium fare is required for route deviations.

Calaveras Transit provides coordinated transfers with Amador Transit in Mokelumne Hill (which provides a link to Sacramento) and Tuolumne County Transit at Columbia College. As important regional connections, the County of Calaveras coordinates closely with Amador and Tuolumne County Transit agencies when making decisions that affect these regional connections.

The four Calaveras Transit routes are described below:

Route 1: Travels between Valley Springs and Angels Camp, originating and terminating each trip in San Andreas at the Government Center.

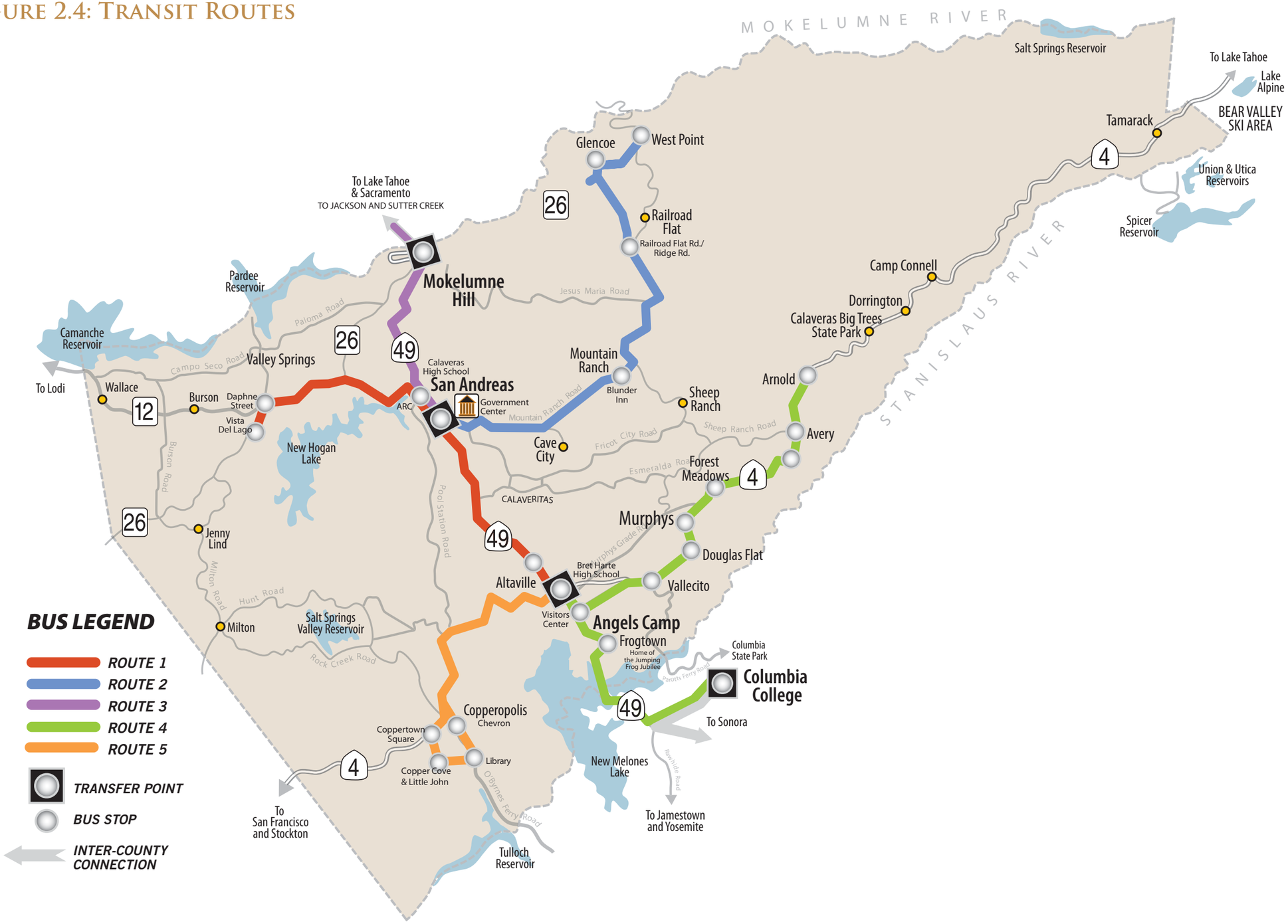
Route 2: Travels between San Andreas and West Point, originating and terminating each trip in San Andreas. The Route travels through Mountain Ranch, Rail Road Flat and Glencoe.

Route 3: Provides direct service to Jackson, originating and terminating in San Andreas, traveling through Mokelumne Hill.

Route 4: Route 4 originates in Angels Camp, travels to Arnold via Highway 4 with stops in Avery, Forest Meadows, Murphys, and Douglas Flat, returns to Angels Camp, then travels to Columbia College via Highway 49. Route 4 connects with Tuolumne County Transit at Columbia College.

Route 5: Originates in Angels Camp, operates a loop in Copperopolis and returns to Angels Camp.

Figure 2.4: Transit Routes



Current Fare Structure

The current fare structure for Calaveras Transit is provided in Table 2.10. Children under 8 years and all transfers are free of charge.

TABLE 2.10 CALAVERAS TRANSIT FARES EFFECTIVE JULY 1, 2009

Fares	Increased Amount
One-Way Regular	$2.00
One-Way Discounted	$1.00
All-Day Pass	$4.00
Ticket Book (15) Regular	$26.00
Ticket Book (15) Discounted	$10.00
Monthly Pass (Regular)	$60.00
Monthly Pass (Student)	$40.00
Monthly Pass (Discounted)	$30.00
Children Under 8 and Transfers	Free

Source: Calaveras Transit 2011

Holidays

Calaveras Transit does not operate on the following holidays (Holidays falling on weekends are observed on the nearest weekday):

- New Year's Eve/Day
- Presidents Day
- Martin Luther King Jr. Day
- Memorial Day
- Veterans Day
- Thanksgiving and day after
- Christmas Eve/Day
- Independence Day
- Labor Day
- Columbus Day

Calaveras Transit Performance

Table 2.11 provides a five-year summary of performance indicators for Calaveras Transit. The transition from six fixed-routes to four has reduced the number of vehicle and revenue hours for the system. Ridership has fluctuated from a high of approximately 91,000 in fiscal year 08/09 to a low of 55,000 in fiscal year 09/10. On a positive note, ridership for fiscal year 10/11 appears to be on the rebound with an increase of approximately 4,800 from the previous fiscal year. It is anticipated that transit ridership and fare revenues will continue to increase as the economy improves and the County experiences additional growth.

TABLE 2.11 CALAVERAS TRANSIT PERFORMANCE INDICATORS					
Performance Indicator	**FY 06/07**	**FY 07/08**	**FY 08/09**	**FY 09/10**	**FY 10/11**
Total Passengers	58,766	74,359	90,834	55,273	60,080
Total Fares	$67,983	$77,703	$89,326	$69,184	$59,165
Total Revenues	$726,598	$1,335,214	$985,335	$749,587	$973,109
Revenue Hours	13,029	13,317	15,005	9,248	8,807
Vehicle Miles	361,616	415,855	439,260	274,609	263,345
Passengers/Revenue Hour	4.51	5.58	6.05	5.98	6.82
Passengers/Vehicle Mile	0.16	0.18	0.21	0.20	0.23
Fare Recovery Ratio	9.3%	7.1%	8.5%	9.5%	7.2%
Total Expense	$731,327	$1,089,376	$1,048,901	$727,680	$836,377
Source: Calaveras DPW and Calaveras Transit, 2011					

Consistency with 2009 Short Range Transit Plan

On June 3, 2009 the CCOG adopted the update to the Short Range Transit Plan (SRTP). The current SRTP includes recommendations to guide transit operations over a five-year period from 2009 to 2013.

The SRTP encompasses a review of demographic conditions, analysis of existing transit services, the evaluation of service alternatives, capital alternatives, funding alternatives, managerial alternatives, and a detailed five-year operating and financial plan. Additionally, telephone and onboard rider surveys were conducted to obtain public opinions regarding Calaveras Transit and transit issues in general. To maximize the data collected as part of the SRTP, the research and findings presented in the SRTP have also been used to inform the Unmet Transit Needs finding process. The SRTP reviewed the adequacy of current services, alternative transportation services available and identified the demographic in Calaveras County most likely to potentially be Transit Dependent.

The analysis from the Short Range Transit Plan concludes that the potentially transit dependent population is being served by transit. The data reveals that Calaveras Transit should strive to continue to provide transit services to Copperopolis, Valley Springs, and West Point where the largest percentages of transit dependent residents are located.

ALTERNATIVE TRANSPORTATION PROVIDERS

In addition to public transit services, there are several human service agencies which provide transportation in Calaveras County. These providers, and other agencies whose clients require public transit assistance, are summarized below:

American Cancer Society runs a small volunteer driver and mileage reimbursement program for cancer patients needing transportation to medical appointments.

Area 12 Agency on Aging was formed through a joint powers agreement between Amador, Alpine, Calaveras and Tuolumne Counties and provides funding for several senior service programs. The agency does not provide direct transportation services, however, will refer clients who need transportation to Calaveras Transit or other transportation resources available in the county (e.g., Volunteer Center of Calaveras).

Valley Mountain Regional Center (VMRC) purchases and organizes services for people with developmental disabilities. The goal of VMRC is to help persons with developmental disabilities be self-sufficient and lead productive and fulfilling lives through programs such as clinical and diagnostic services, adult day programs, behavior intervention, employment support, and respite services. VMRC contracts with vendors such as ARC and WATCH for these services. VMRC contracts directly with Blue Mountain Transit for transportation services between consumers' homes and ARC and WATCH programs in Calaveras County.

ARC of Amador and Calaveras County provides day programs or community services for the developmentally disabled to assist them with life skills, computer skills, relationship skills, and work opportunities. Blue Mountain Transit provides transportation for ARC consumers from their homes to ARC programs located at 127 Bellevue Street in San Andreas while ARC staff provides transportation for program activities using five minivans, one of which is wheelchair accessible. Community service program hours run from 9:00 AM to 3:00 PM Monday through Friday. There are from 35 to 40 average daily attendees at the Calaveras County program. The ARC purchases approximately $100 in tickets each month on Calaveras Transit for ARC consumers. ARC staff has mentioned that there are classes available in Murphys and Valley Springs that ARC consumers would like to attend; however the Calaveras Transit schedule does not arrive or depart at the right time.

WATCH Resources is another vendor for VMRC. Although based in Sonora, WATCH operates a program for the developmentally disabled in Angels Camp. Similar to ARC, Blue Mountain Transit is under contract with VMRC to provide transportation for WATCH consumers' homes to the program site while WATCH staff provide intra-day program transportation using.

Calaveras County Behavioral Health Services/Mental Health Services and Substance Abuse Program is the County mental health program. Behavioral Health Services owns vehicles that are used to transport clients to the Mental Health Facility for medical appointments and counseling programs located near the Government Center off of Mountain Ranch Road. The agency purchases bus passes for program participants.

The Calaveras County Probation Department regularly purchases Calaveras Transit bus tickets for distribution to both juvenile and adult offenders in the probation system. Bus tickets are distributed on an as-needed basis to probation-related appointments and work program participation (weekend and after-school community service placements for juveniles), but may also be provided for other needs, such as transportation to medical appointments. Probation Department staff work to coordinate appointments with transit service schedules.

Cal WORKS purchases Calaveras Transit ticket books on an as-needed basis for Welfare-to-Work program clients each year. Client transportation is also supported through assistance with automobile-related expenses, such as mileage, car repairs, insurance, and licensing costs. Cal WORKS provides direct transportation using a County vehicle only under special circumstances (and usually for a "one-time" need).

The Resource Connection (TRC) is a private, non-profit human service agency which has been serving California's central Sierra Foothill communities since 1981. The agency offers a variety of programs: Childcare Resources, Head Start, Calaveras Crisis Center, Mother Lode Women Infant Children Program and Community Services/Food Bank. Two specific programs involving transportation services are **Head Start** and **TRC Community Services/Salvation Army.**

Mark Twain St. Joseph's Hospital is the only hospital in the County. The hospital provides free transportation between patients' homes or specified locations in Calaveras County to radiation therapy at Ben Schaffer Cancer Institute in Lodi and St. Joseph's Medical Center in Stockton.

Volunteer Center of Calaveras sponsors a volunteer transportation program for Calaveras County residents. For residents in need of rides to medical appointments, the grocery store, post office, etc., volunteers are reimbursed for mileage. Reimbursement is funded through private donations and Volunteer Center general funds. Approximately 350 individuals are registered to receive transportation through the program.

The Volunteer center has also organized a Carpool-to-Dialysis program. Efforts are made by clinic and Volunteer Center staff to coordinate appointments and organize carpools.

Additionally, in response to potential public emergencies, The Volunteer Center is working with communities to design and replicate a disaster emergency preparedness plan with local citizens trained to provide aid to their neighbors prior to the arrival of Red Cross and/or County services. This plan includes evacuation transportation.

Other Transportation Providers

Amtrak
The closest Amtrak station to Calaveras County is Lodi Station. This station is served by both Amtrak California rail service as well as Thruway bus service. Departures for destinations south towards Los Angeles consist of two train departures and three bus departures connecting with the train in Stockton. Departures north to Sacramento consist of two train departures and four connecting bus departures daily. In addition, there are three thruway bus departures southbound toward Los Angeles and five thruway bus departures northbound to Redding.

Greyhound
Lodi Station is also the closest Greyhound Station. Four departures are available daily to Los Angeles or San Francisco.

Taxi Services

Murphys Taxi Service, Copper Cab, and 49er Cab Company provide private taxi service in Calaveras County. Amador Pioneer Cab based out of Jackson provides limited service in Calaveras County.

UNMET TRANSIT NEEDS

Regional Transportation Planning Agencies (RTPA) are required to annually produce and submit an *Unmet Transit Needs Findings Report* to California Department of Transportation (Caltrans), Division of Mass Transportation. The purpose of this document is to ensure that the primary intent of the Transportation Development Act (TDA) is satisfied prior to any allocation for non-public transportation purposes such as road maintenance. The Social Services Transportation Advisory Council met on April 12, 2012 to discuss potential unmet transit needs that may exist in Calaveras County. As part of this process, on March 7, 2012 the CCOG adopted an "Unmet Transit Need" definition as follows:

"Public transit or specialized transportation services not currently provided for persons within Calaveras County who have no reliable, affordable, or accessible transportation for necessary trips. Necessary trips are defined as those trips which are required for the maintenance of life, education, access to social service programs, health, physical and mental well-being, including trips which serve employment purposes. The size and location of the group must be such that a service to meet their needs is feasible within the definition of "reasonable to meet" as set forth below.

Unmet needs may include desires for transportation services which are identified through the annual unmet transit needs process, or by the Social Services Transportation Advisory Council (SSTAC) which are not yet implemented or funded. The consideration of unmet transit needs is not limited to the abovementioned methods. It is the practice of the Calaveras Council of Governments to consider input relative to transit needs from any group or member of the public wishing to express such needs."

The definition further excludes:

1. Minor operational improvements or changes, involving issues such as bus stops, schedules, and minor route changes which are being addressed by routine or normal planning process,
2. Improvements funded or scheduled for implementation in the fiscal year following the Unmet Transit Needs Hearing, and
3. Future transportation needs.

Social Services Transportation Advisory Council (SSTAC)

The purpose of the Social Services Transportation Advisory Council is to provide broad representation of social services and transit providers representing the elderly, disabled and persons of limited means. Section 99238, of the Transit Development Act (TDA), requires the following representation on the SSTAC:

- One representative of potential transit users who are 60 year of age or older.
- One representative of potential transit users who have a disability.

- Two representatives of a local social service provider for seniors, including one representative who provides transportation.
- Two representatives of local social service providers for persons with disabilities, including one representative of a social service transportation provider, if one exists.
- One representative of a local social service provider for persons of limited means.
- Two representatives from the local consolidated transportation service agency, if one exists, including one representative from an operator, if one exists.

The CCOG may appoint additional members in accordance with the following TDA procedures:

> *"Members of the SSTAC shall be appointed by the CCOG, which shall recruit candidates for appointment from a broad representation of social service and transportation providers representing the elderly, persons with disabilities and persons of limited means. In appointing SSTAC members, the CCOG shall strive to attain geographic and minority representation among SSTAC members."*

The responsibilities of the Social Services Transportation Advisory Council are as follows:

- To annually participate in the identification of transit needs in Calaveras County, including unmet transit needs that may exist and may be reasonable to meet by establishing or contracting for new public transportation or specialized transportation services or by expanding existing services.
- To annually review and recommend action by the CCOG, which finds by resolution that, a) there are no unmet transit needs, b) there are no unmet transit needs that are reasonable to meet, or c) there are unmet transit needs including needs that are reasonable to meet.
- To advise the Calaveras Council of Governments on any other major transit issues.

The CCOG also adopted **"Reasonable to Meet"** criteria as follows:

A. Financial Feasibility. 1) The proposed transit service, if implemented or funded, would not cause the responsible operator or service claimant to incur expenses in excess of the maximum allocation of Transportation Development Act (TDA) funds, State Transit Assistance, FTA 5311 funds, and other transit specific monies as may become available. 2) The proposed service, if implemented or funded, would not affect the responsible operator or service claimant's ability to meet the required system-wide farebox revenue-to-operating cost ratio of 10%. 3) Proposed transit system expansion must be monitored and evaluated after 6 months of operation (or other approved period of review) by the CCOG board.

B. Cost Effectiveness. Supporting data demonstrates sufficient ridership and revenue potential exists for the new, expanded or revised transit service to meet or exceed the required farebox revenue-to-operating cost ratios on a stand-alone basis; except in case of an extension of service determined to be a necessary lifeline service for transit-dependent populations. Furthermore, cost-per-passenger is reasonable when compared to the level of service provided, benefit accrued to the community and to existing service cost-per-passenger.

C. Community Acceptance. There is sufficient public support for the proposed transit service, as indicated through the annual public hearing process.

D. Equity. The proposed transit service would benefit either the general public or the elderly and disabled population as a whole. Transit Service will not be provided favoring one group at the exclusion of any other.

E. System Impact. It has been demonstrated to the CCOG Board that the proposed transit service combined with existing service will allow the system to meet or exceed performance standards such as the cost-per-passenger trip, cost-per-service-hour, passenger trips-per-service hour, passenger trip-per-service mile, on time performance and vehicle service hours-per-employee. The proposed service does not duplicate transit services currently provided either publicly or privately. The proposed service is in response to an existing rather than a future need.

F. Operational Feasibility. There are adequate roadways and turnouts to safely accommodate transit vehicles.

G. Availability of Services Provided. A qualified contractor is available to implement the service.

Unmet Transit Needs Findings

Unmet transit needs findings for FY 2012-13 were adopted by the CCOG on August 1, 2012. These findings were determined based on the criteria and definition listed above. The CCOG determined there were no "unmet transit needs that were reasonable to meet" for FY 2012-13. The SSTAC, however, had identified several recommendations for CCOG consideration for the FY 2012-13 determination. First, SSTAC encourages Calaveras Transit to provide direct service from San Andreas to Jackson in Amador County. This was a recommendation from the 2011-12 Unmet Transit Needs Findings Report as well as a recommendation in the 2009 Short Range Transit Plan. Given the demand for this service, Calaveras Transit developed a Productivity Improvement Plan, implemented on September 1, 2012, which included direct service to Jackson. The SSTAC would also like to see evening weekday service to Columbia College evaluated further as it was also an unmet needs request in 2011-12. Calaveras Transit continues to assess the financial feasibility and current or potential demand for this service.

The SSTAC also supports the County of Calaveras to conduct the Intercity Transit Feasibility Study that will evaluate funding, feasibility and coordination of an intercity service to/from Calaveras County and a neighboring urbanized area such as San Joaquin County. Direct transit service to San Joaquin County (e.g., Stockton, Lodi) continues to be a request through the unmet needs process and SSTAC.

Two locations were also recommended by SSTAC to be considered for additional service and access given increased demand in these locations: Vista Del Lago Drive in Valley Springs and Copello Road in Angels Camp. As funding becomes available, Calaveras Transit will further evaluate these locations to assess whether potential demand will support the cost of additional service.

AVIATION FACILITIES

The Calaveras County Airport (Maury Rasmussen Field) is a public general aviation airport located four miles southeast of the central business district of San Andreas. The airport is owned by the County of Calaveras. The airport covers an area of 93 acres and contains one runway (13/31) that is 3,603 feet in length, 60 feet wide, and has two helipads (65 feet by 65 feet). The number of based aircraft and annual flight operations are shown in Table 2.12. The Airport Master Record (5/2012) is included in Appendix 2D.

TABLE 2.12 CALAVERAS COUNTY AVIATION FACILITIES

	Based Aircraft	Aircraft Operations*	
		Annual	Average Daily
Maury Rasmussen Field	50 Single Engine	32,000	87
	2 Multi-Engine		
	1 Ultra-Light		

** Take-offs and landings*
Source: US Department of Transportation Airport Master Records August 25, 2011.

Federal and State Classification Systems

Both the State and Federal governments classify airports by function in relation to other airports. The federal system is based on two broad categories, commercial airports and general aviation (GA) airports. Commercial airports must have scheduled air carrier service, and are further broken down by the passenger volume moving through the airport. All non-commercial and non-military airports fall into the category of reliever or GA airports. Maury Rasmussen Field is a public GA airport. The State California Aviation System Plan (CASP) also has a functional classification system that describes how an airport functions in relationship to other airports in California. The System Requirements Element of the CASP depicts recommended standards by airport functional classification. **NPIAS Status and Significance**

Maury Rasmussen Field is in the Federal Aviation Administration's (FAA) National Plan of Integrated Airports System (NPIAS). This designation is significant because, it makes the airport eligible to apply for federal grants for airport projects. Only a portion of all US airports are enrolled in the NPIAS. Public use airports in the US are typically owned and managed by local government entities such as cities, counties, and special districts. Maury Rasmussen Field is owned by the County of Calaveras. All public use airports are part of a national system of airports, similar to the federal interstate highway system.

The FAA grants NPIAS status to airports it feels have significance to this national system of airports. Because of their value to the system, the FAA provides federal grants to NPIAS airports to maintain and upgrade their facilities. Only NPIAS airports can apply for and receive FAA grants. The FAA has several grant programs that cover a wide variety of projects including capital development, routine maintenance, facility upgrades, and airport planning documents. The FAA's Airport Improvement Program (AIP) grant program pays 95 percent of a project's cost. The remaining five percent of a project's cost is split between the State and airport owner. All federal grants come with a grant assurance requiring repayment in full for

all federal grants given to an airport, should the airport be closed. The FAA NPIAS web site is http://www.faa.gov/airports/planning- capacity/npias.

Airport Land Use Planning Process

The State Aeronautics Act, Public Utilities Code Section 21670 et seq., requires counties with public use airports to conduct airport land use compatibility planning. This function is typically handled by an airport land use commission (ALUC), but counties have the flexibility to develop an alternative process. Counties have the option of designating a single purpose entity, or another existing governing body to serve as the ALUC. ALUC's have two functions: 1) the preparation of airport land use compatibility plans (ALUCP) for each public use airport for its county, 2) and to review local agency land use actions and airport master plans.

The ALUC's authority is limited to land use compatibility and safety concerns within the airport influence area. Each airport's influence area is defined by the ALUCP or a default two mile radius around the airport. Every public use airport regardless of size must have an ALUCP. Guidance for airport land use compatibility planning and ALUC formation and function can be found in Caltrans Division of Aeronautics *California Airport Land Use Planning Handbook, January 2002*. The Handbook is available online at: *http://www.dot.ca.gov/hq/planning/aeronaut/documents/ALUPHComplete-7-02rev.pdf*

BIKEWAY AND PEDESTRIAN FACILITIES

The following section summarizes bicycle and pedestrian facilities in the County and City of Angels.

Local Sidewalks and Rural Roads Pedestrian Analysis

The long-term vision for pedestrian travel is to make Calaveras County communities more accessible, where there is a balance between the automobile and alternative modes, where walkways are connected to provide a consistent experience within communities.

Most pedestrian activity in Calaveras County occurs in the developed areas in the western portion of the County and along the Highway 4 corridor. As a result, most of the County's existing sidewalks and pathways are located in those areas. The needs assessment also considers rural roads not concentrated in developed areas.

Nonexistent or Inadequate Facilities

There are numerous places were sidewalks do not exist or end abruptly. The majority of the County's sidewalks are in the developed areas of the County where pedestrian activity is higher. Although some of the rural roads have paved shoulders which are used for walking, such shoulders are not designed for pedestrian safety.

The surface condition of existing sidewalks, shoulders and informal pathways needs to be improved. Tripping obstacles range from broken sidewalk sections to overgrown shrubs and landscaping that block passage.

Accessibility

The majority of intersections in the County either do not have wheelchair ramps, or where they exist, many times the ramps are in conjunction with discontinuous sidewalks. To accommodate wheelchairs adequately and comfortably, many sidewalks need to be widened. As sidewalks are widened and made accessible by the introduction of ramps, utility poles may need to be removed so that accessibility is truly achieved. Although there are paved shoulders alongside rural roads that are used for walking, this does not meet ADA requirements.

Connectivity

Discontinuous or poorly maintained sidewalks exist on both small and large scales in Calaveras County. There are areas of the developed County where crossings of State highways are lacking between nearby destinations such as schools and employment centers. Because most rural roads do not have sidewalks or adjacent pathways for walking, there is a lack of connectivity between neighborhoods and destinations such as local schools or markets. Maintenance and improvements to existing walkways would enable residents to make better use of these facilities and access transit stops for travel out of their community.

Access to Transit

Pedestrian access to transit is a key component of a successful local pedestrian network and enables walking as a regional mode of transportation. Currently all transit stops are designated with signs. Not all stops are ADA compliant or have sidewalks or pathways for pedestrian access. According to Calaveras Transit staff, few transit stops have benches, shelters or informational kiosks. Calaveras Transit staff has proposed several improvements for benches and shelters as a result of grant funding. These improvements are listed in the Action Element Appendix 4C. Transit shelters exist at several transfer locations. Access-to-transit improvements include:

- Maintenance of bus stop signs
- Information kiosks providing route information and schedules
- Shelters accessible via curb ramps and concrete pads
- Benches
- Safe access to stops, including walkways, pathways and crossings in bus stop vicinity and within a 0.5 to 0.75-mile radius.
- Wayfinding signage to/from transit stops at selected locations, for example downtown Angels Camp, San Andreas, Murphys and Arnold

BICYCLE AND PEDESTRIAN NEEDS BY COMMUNITY

The Calaveras County Pedestrian Master Plan and Calaveras County Bicycle Master Plan, adopted by the CCOG in 2007, identified various gaps in the pedestrian and bicycle network in each Calaveras County community. The plans are meant to provide consistency with other plans as well as to promote the critical aspect of policy integration and coordination with the County Department of Public Works and County

Planning Department. The plans integrated elements of the general plan, the regional transportation plan and other previous planning efforts. The plans included user surveys to assess levels of walking and biking and public input on needed improvements. During the process several public meetings were held for each plan with the Calaveras County Board of Supervisors and the CCOG. Findings form public input indicated residents are most concerned with an overall lack of safe facilities and connections and access to recreational opportunities within communities. Specific needs identified by community are intended to guide efforts to complete a connected and accessible walking and biking system that will improve non-auto mobility and access. To accomplish this, the CCOG will continue to review bicycle and pedestrian needs as funding allows. The primary focus will be to provide safe and adequate bicycle lanes and pedestrian walkways where reasonable and appropriate, taking into account limited funding and pressing needs for maintaining existing roads.

As stated previously, the CCOG should move toward updating the 2007 Bicycle Master Plan and adopting the plan so they can continue to have the ability to qualify for more recent State Bicycle and Transportation Account (BTA) funding. In addition, the CCOG should continue to seek funding through the Safe Routes to School (SR2S) program and/or the Community Based Transportation Planning (CBTP) grants available through Caltrans.

Valley Springs

The primary walking area in Valley Springs is within the small commercial district at the intersection of State Routes 12 and 26. Currently there are sidewalks along a short segment of SR 12 on the north side of the street with crosswalks on all legs of the intersection with SR 26 except the southern approach. The sidewalks discontinue towards the adjacent residential and commercial areas. In addition, there is an existing mid-block crosswalk southwest of this intersection. All crosswalks are striped with standard configuration. Needs include:

- Upgrading all existing crosswalks to high visibility, including new or repositioned advance warning signs and additional street lighting as needed.

- Curb ramps at northwest and southwest corners, including new landing area for proposed sidewalk at southwest corner Of SR 12/SR 26 intersection.

- Sidewalks on the west side of SR 26 to access the shopping centers on east and west sides of SR 26 south of the SR 12 and SR 26 intersection.

- New crosswalk to connect shopping centers on east and west sides of SR 26 south of the SR 12 and SR 26 intersection. Midblock location should include advance warning signs, concrete landing areas with curb ramps, and possibly additional street lighting and a flashing pedestrian-actuated crosswalk beacon.

San Andreas

San Andreas is one of two communities whose "Main Street" segment of SR 49 is the focus of commercial and pedestrian activity for the community. Existing pedestrian facilities include nearly complete but discontinuous sidewalks on both sides of SR 49 with three existing crosswalks (two standard and one school), a multi-use pathway parallel to Gold Strike Rd accessing San Andreas Elementary School and two existing school crosswalks at the school. At the south end of town discontinuous sidewalks can be found on both sides of Mountain Ranch Road and a new multi-use pathway connects the Calaveras County Government Building to the Hospital. Needs include:

- Continuous sidewalks on both sides of SR 49 between Mountain Ranch Road and Pool Station Road.
- Continuous sidewalks along Mountain Ranch Road between SR 49 and Pope Street.
- Sidewalks along Lewis between California and Gold Strike Road.
- Improved crosswalks on Mountain Ranch Road at the hospital.
- Any mid-block crossing locations should include advance warning signs, concrete landing areas with curb ramps at either end of the crosswalk to connect to proposed and existing sidewalks, and possibly additional street lighting and a flashing pedestrian crosswalk beacon.
- Street lighting at crosswalks along SR 49 where not currently provided.
- Possibility of curb extensions at the northeast corner of SR 49 and Gold Strike Road.

Copperopolis

Located south of the intersection of State Route 4 and O'Byrnes Ferry Road, this area is one of the most quickly developing communities in Calaveras County, with the majority of new development focused outside the area of historic Copperopolis. Currently there are very few pedestrian or bikeway facilities in this community.

Pedestrian and/or bicycle facility needs in this area are divided into two parts: Historic Copperopolis and the area near the intersection of O'Byrnes Ferry Road and Copper Cove Drive.

Historic Copperopolis

Historic Copperopolis has several destinations such as the Copperopolis Elementary School, McCarty's Copper Inn general store and the Community Center. This area, near SR 4, O'Byrnes Ferry Road and Reeds Turnpike has no sidewalks or designated walkways. There are two existing school crosswalks, both serving the Elementary School. Needs include:

- Upgrade existing school crosswalks to improve visibility

- Improved crossing design for O'Byrnes Ferry Road and Reeds Turnpike, to serve the general store and Community Center.

- Shoulder improvements on O'Byrnes Ferry Road to serve bicycling and pedestrian travel needs.

Copperopolis – O'Byrnes Ferry Road and Copper Cove Drive Intersection Area

The area south of historic Copperopolis consists primarily of new dispersed subdivision developments. Two shopping centers and the Copper Meadows subdivision are located near this intersection and other area destinations include the future Copper Cove Middle School location further west on Copper Cove Drive, Saddle Creek Golf Course, and Lake Tulloch. Currently, there is a sidewalk leading from the southeast corner of this intersection into the shopping center, but none along the other approaches. Needs include:

- Possibility of multi-use pathways on the south side of Copper Cove Drive and the east side of O'Byrnes Ferry Road to access nearby restaurants and shops. Some right-of-way acquisition may be necessary, although construction of the pathway could be financed through future development.

- Improved crosswalk on the east leg of the intersection at Copper Cove Drive and Feather Drive. Improvement should include advance warning signs, concrete landing areas with curb ramps at either end of the crosswalk, and possibly additional street lighting.

- Improved crossing of the north leg of O'Byrnes Ferry Road and Spangler Lane to afford residents of the adjacent Copper Meadows subdivision the option to walk to the shopping center across the street.

- Completion of sidewalk south of Spangler Lane.

City of Angels

The historic "gold rush" downtown area located on State Route 49 and the intersection of SR 49/4 to the north have nearly complete sidewalks. Along SR 49, the intersections with Murphys Grade Road and SR 4 both have pedestrian signal heads as well as pedestrian push-button actuators and full curb ramps with landings/sidewalks. There are some ADA accessibility issues regarding the sidewalks in the historic district, due to stairway barriers and elevation differences between the street and sidewalk levels. A total of eleven crosswalks along SR 49 exist in Angels Camp, one of which is a school crosswalk. In addition, a pedestrian crosswalk signal connects Bret Harte Union High School and the parking lot on the other side of Murphys Grade Road. Needs include:

- Continuous sidewalks on both sides of SR 49 between SR 4 north and Vallecito Road, including an extension on the west side of SR 49 to the CVS shopping center and downtown.

- Re-positioning the locations of push buttons and pedestrian signal heads at the intersection of SR 49 and SR 4 (north).

- Mid-block crossing on SR 4 (south) at Angels Creek Community Day School. Mid-block location should include advance warning signs, concrete landing areas with curb ramps at the ends of the crosswalk, and possibly additional street lighting and a flashing pedestrian crosswalk beacon.

Existing Facilities

The existing bicycle facilities in the County, although limited, are listed in Table 2.13.

TABLE 2.13 EXISTING BIKEWAYS IN CALAVERAS COUNTY

Route	Location	Route Type	Jurisdiction
Mountain Ranch Rd. Pathway	Michael St. to Garibaldi St.	Class 1 Path	Mountain Ranch
Gold Strike Rd. Pathway	Gold Strike HS to Court St.	Class I Path	San Andreas
San Andreas Creek Pathway	Govt. Center Rd. to County Govt. Offices	Class I Path	San Andreas
Stanislaus Ave. Bike Lanes	Main Street (SR 49) to San Joaquin Ave.	Class II Bicycle Lane	City of Angels
Arnold Rim Trail	Blagen Road/Highway 4 (Sierra Nevada Logging Museum) to Hathaway Pines/Highway 4	Class I Multi-use Path	Arnold

Source: Bicycle Master Plan 2007; CCOG 2012

MANAGING THE TRANSPORTATION SYSTEM

System management strategies are divided into two categories: transportation system management (TSM) and transportation demand management (TDM). Each category emphasizes different strategies and approaches for increasing the operational efficiency of the transportation system.

Transportation system management refers to techniques for maximizing use of existing circulation facilities without constructing expensive new facilities. Examples of TSM include signal timing, access management, transit priority treatments, high occupancy vehicle (HOV)/commuter lanes, and other operational-oriented strategies to improve traffic flow.

In contrast, transportation demand management strategies manage the flow of traffic on, and extend the life cycle of, existing facilities by reducing and reshaping the demand for use of these facilities. Most TDM strategies are designed to influence travel choices by providing alternatives to driving alone. Examples of TDM include the coordinated use of public and social service transportation, ridesharing (carpool/vanpools), telecommuting, bicycling, the use of flexible (staggered) work hours, variable work schedules by large employers, and the management of parking demand.

Implementation of TSM and TDM strategies helps limit congestion, improve the safety and efficiency of transportation facilities, and delay the need for major road expansion projects. The County is encouraged

to explore opportunities to increase the use of TSM and TDM where demonstrated need and funding allow.

INTELLIGENT TRANSPORTATION SYSTEM (ITS) ARCHITECTURE

Caltrans District 10 continues to develop and deploy several ITS networks, benefiting travelers in and through the region covered by District 10.

- Roadway Surveillance Network, primarily consisting of Closed Circuit Traffic Cameras (CCTV), Road Weather Information Systems (RWIS), and other Roadway Sensor Systems.

- En-Route Driver Information Systems, primarily consisting of Changeable Message Signs (CMS), Highway Advisory Radio (HAR), Extinguishable Message Signs (EMS) alerting drivers of Chain-up Zones and Site-Specific Road Condition Alerts and Guidance, and Rest Area Kiosks providing mountain Pass/Driving Condition information.

- Traveler Information Systems on the Caltrans District 10 Web site provides updated weather and driving condition information for pre-trip planning and route selection.

AIR QUALITY

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 and travel 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 Ozone, PM2.5, and PM10 which 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, but 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.

Calaveras County is part of the Central Mountain Counties nonattainment area for the ozone National Ambient Air Quality Standard (NAAQS). The standard was most recently revised in 2008, and is currently 0.075 parts per million (ppm) averaged over 8 hours. The Central Mountain Counties nonattainment area has not yet been classified as to the severity of Ozone NAAQS nonattainment. Calaveras County is also nonattainment for the State ozone standard (0.070 ppm/8 hours, 0.09 ppm/1 hour).

Because the Central Mountain Counties area (Calaveras and Amador Counties) is nonattainment for the ozone NAAQS, "conformity" requirements apply to Federal actions. However, there are no Metropolitan Planning Organizations (MPOs) within the nonattainment area, so "isolated rural" area requirements apply: regional conformity analysis is required only when "regionally significant" projects are proposed, as part of the environmental analysis process for that project. Since Calaveras Council of Governments is not a MPO, no conformity analysis or determination is required for the Regional Transportation Plan.

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 that reduces 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.

Calaveras County is currently attainment/unclassified for the CO NAAQS. The State CO status is also Unclassifiable. Current (2011) data for Calaveras County are not available. Current standards include:

- NAAQS: 9 ppm/8 hour 35 ppm/1 hour
- State: 9.0 ppm/8 hour 20 ppm/1 hour

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.

Calaveras County is currently attainment/unclassified for the PM10 NAAQS. The county is nonattainment for the State PM10 standard. Current standards include:

- NAAQS: 150 $\mu g/m^3$ – 24 hr (no annual standard)
- State: 50 $\mu g/m^3$ – 24 hr 20 $\mu g/m^3$ – annual

Particulate Matter 2.5 (PM2.5): The PM2.5 standard complements the existing federal and state standards of PM10. Sources of PM2.5 emissions, or fine particles, originate from fuel combustion of a variety of sources, such as motor vehicles, power generating stations, residential fireplaces and wood-burning stoves, agricultural operations and other industrial facilities. 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.

Calaveras County is currently Unclassifiable/Attainment for the PM2.5 NAAQS, and is Unclassified for the State PM2.5 standard. Current (2011) data are not available for Calaveras County; 2009 (State) and 2010 (Federal) data suggest that the county attains PM2.5 standards. Current standards include:

- NAAQS: 35 µg/m^3 – 24 hr. 15 µg/m^3 – annual
- State: (no 24-hr. standard) 12 µg/m^3 – annual

Based on historic air quality data, in general, Calaveras County has good air quality. However in 2011 Calaveras County exceeded state and federal ozone and PM10 standards as shown in Table 2.14.

TABLE 2.14 FEDERAL AND STATE AIR QUALITY STANDARDS

Pollutant	Standard	Federal Design Value	State Designation Value	Status
Ozone (8-hr)	NAAQS (0.075 ppm) State (0.070 ppm)	0.077 ppm --	-- 0.084 ppm	Nonattainment Nonattainment
Ozone (1-hr)	State (0.09 ppm)	n/a	0.10 ppm	Nonattainment
PM10 (annual)	State (20 ppm)	--	13.0 µg/m^3 (2009)	Nonattainment
PM10 (24-hr)	NAAQS (150 µg/m^3) State (50 µg/m^3)	No violations	No violations	Nonattainment (State) based on annual

Source: Calaveras County Air Pollution Control District (CCAPCD)

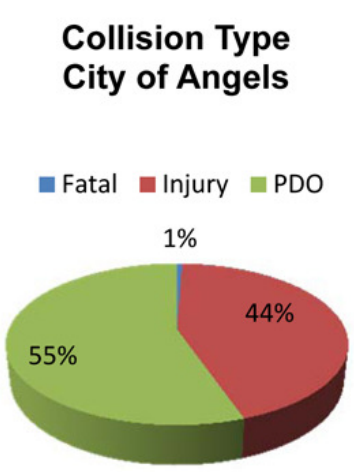
Calaveras County is part of a collaborative effort between the California Air Resources Board and local air pollution control districts to develop a State Implementation Plan (SIP) for attainment of the ozone NAAQS. Once this document is complete, the RTP will be updated to include any strategies for air quality management and air pollutant reductions that result from the SIP process. The timeline for adoption of the SIP is still unknown at this time.

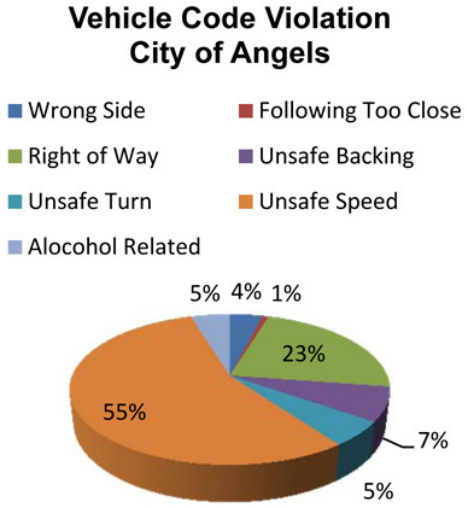
SAFETY

Motorist safety on the state highway system is an important element of the RTP planning process. The CCOG has included a safety goal and performance measure in the RTP to increase safety on State highways in the County. In addition, the Action Element identifies projects that contribute to safety goals.

City of Angels

Table 2.15 provides a five-year (2006 – 2010) summary of traffic collisions in the City of Angels for both State highways and local roads. The table further identifies the types of collisions and primary collision factors. Approximately 75 percent occurred on two State highways. Collisions on local City roads accounted for 25 percent of the collisions since 2006.





The primary causes of collisions in the City of Angels involved right-of-way violations and unsafe speed for conditions. Forty-four percent involved injuries. Continued enforcement of turning violations, particularly at intersections and two-way left turn lanes, and speed enforcement will help reduce the frequency and severity of collisions.

TABLE 2.15
5-YEAR COLLISION SUMMARY
CITY OF ANGELS

	2006	2007	2008	2009	2010	5-Year Total	Percent
Collision Type							
Total Collisions	49	33	35	33	27	**177**	
Fatal Collisions	1	0	0	0	0	**1**	0.6%
Injury Collisions	21	13	14	15	15	**78**	44.1%
Property Damage Only (PDO)	27	20	21	18	12	**98**	55.4%
Collision Location							
SR 4	1	1	2	1	3	**8**	4.5%
SR 49	32	24	25	24	19	**124**	70.1%
Local Roads	16	8	8	8	5	**45**	25.4%
Vehicle Code Violation							
Wrong Side of Road	2	2	0	2	0	**6**	3.4%
Following Too Close	1	0	0	0	0	**1**	0.6%
Right of Way Violation	14	6	7	3	4	**34**	19.2%
Unsafe Starting or Backing	2	2	5	1	1	**11**	6.2%
Unsafe Turning Movement	1	1	0	4	2	**8**	4.5%
Unsafe Speed for Conditions	18	19	17	20	9	**83**	46.9%
Alcohol Related	3	0	0	1	3	**7**	4.0%
Other	8	3	5	3	8	**27**	15.3%

Source: Statewide Integrated Traffic Records System (SWITRS) 2010

Calaveras County

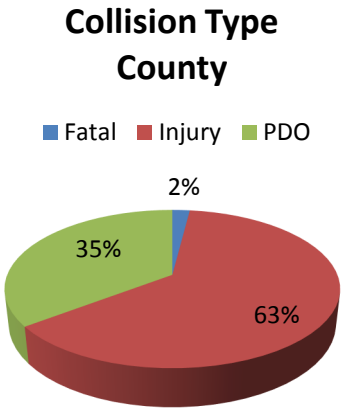
Table 2.16 provides a similar five-Year collision summary for the County of Calaveras.

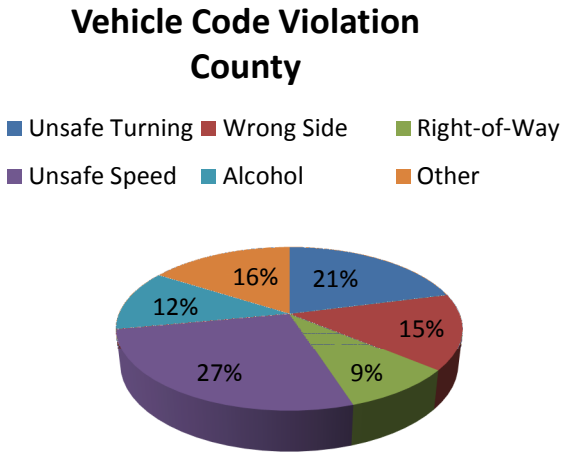
TABLE 2.16
5-YEAR COLLISION SUMMARY
CALAVERAS COUNTY

	2006	2007	2008	2009	2010[1]	5-Year Total	Percent
Collision Type							
Total Collisions	671	647	599	550	425	**2892**	
Fatal Collisions	7	17	9	12	12	**57**	2.0%
Injury Collisions	393	430	370	286	338	**1817**	62.8%
Property Damage Only (PDO)	271	200	219	252	81	**1023**	35.4%
Collision Location							
State Highways	388	357	337	338	252	**1672**	57.8%
Local Roads	283	290	262	212	173	**1220**	42.2%
SR 12	51	42	48	50	31	**222**	7.7%
SR 26	108	106	107	94	63	**478**	16.5%
SR 4	137	134	109	104	99	**583**	20.2%
SR 49	92	75	73	90	60	**390**	13.5%
Local Roads	283	290	262	212	173	**1219**	42.2%
Vehicle Code Violation							
Left of Double Yellow Lines	27	27	18	16	10	**98**	3.4%
Wrong Side of Rd	66	65	79	71	50	**331**	11.4%
Following Too Close	3	8	4	2	3	**20**	0.7%
Right of Way Violation	47	48	59	54	45	**253**	8.7%
Unsafe Starting or Backing	27	14	16	13	9	**79**	2.7%
Unsafe Turning Movement	153	151	100	108	94	**606**	21.0%
Unsafe Speed for Conditions	207	178	163	135	108	**791**	27.4%
Alcohol Related	70	86	82	74	50	**362**	12.5%
Other	71	70	78	77	56	**352**	12.2%

Source: Statewide Integrated Traffic Records System (SWITRS) 2010
[1] 2010 data shows collisions from January through September 2010.

According to the Statewide Integrated Traffic Records System (SWITRS) data, approximately 63 percent of the collisions involved injuries, and over half of those occurred on State highways. The charts below show the type of collision and primary collision violations. Wrong side of road (includes run-off-road) and unsafe speed accounted for approximately 42 percent of collisions.





EMERGENCY PREPAREDNESS

Emergency preparedness involves many elements including training/education, appropriate responses to emergencies, and communication between government agencies (CCOG, County, City) and emergency services such as fire, ambulance and law enforcement. The identification of emergency routes and evacuation methods is important to the RTP planning process, and to the various communities within Calaveras County.

State Highway Evacuation Routes

Four State highways act as the primary evacuation routes for residents of the County. These routes include SR 49, SR 12, SR 26 and SR 4. An important RTP issue is that SR 4 east of the Alpine County line is closed during the winter. Given this fact, the preferred evacuation route is to travel SR 4, SR 12 or SR 26 west toward San Joaquin County and Stanislaus County; or travel south on SR 49 toward Tuolumne County; or travel north on SR 49 and SR 26 to Amador County. The SR 4 Wagon Trail project proposed in the 2007 RTP and continued in the 2012 RTP update will provide more efficient and safer alignment on SR 4 between Copperopolis and Angels Camp.

Local Evacuation Routes

The Calaveras County Department of Public Works (CDPW) has developed a list of local Roads of regional significance as discussed previously. An important criterion for a "road of regional significance" is that the route serves as emergency relief in case collisions, landslides, fires, or other catastrophic events reduce the capacity of major transportation routes. The following local Roads of regional significance have been identified as potential evacuation routes. These Roadways are also identified for transportation improvements in the Action Element (Chapter 4).

- Avery Sheep Ranch Road
- Jenny Lind Road
- Milton Road
- Moran Road

- Mountain Ranch Road
- Paloma Road
- Pool Station Road
- Railroad Flat Road
- Ridge Road
- Sheep Ranch Road

Calaveras Transit

Calaveras Transit's fleet of eight vehicles would be available to transport evacuees. The transit fleet is maintained in San Andreas, and all vehicles are wheelchair accessible.

Aviation

Maury Rasmussen Airport is available for emergency evacuation and there is one officially designated emergency helipad at the Mark Twain St. Joseph's Hospital in San Andreas.

Adjacent Counties and Regions

The possibility of people evacuating to Calaveras County from other parts of the state is real due to the number of second vacation homes that exist in the County. The advent of earthquakes, tsunamis/floods, or attack, may trigger a movement of people and vehicles to the County. The government agencies and emergency response providers recognize that it is difficult to plan for such events. The CCOG recommends that planning efforts in the County and local jurisdictions should consider the possibility of large movements of people and vehicles into the area. The goal is to continue implementing RTP projects that improve Calaveras County roadways particularly for east-west traffic. The City of Angels is currently addressing this by drafting a "Shelter Reception Plan."

Other Evacuation Routes

Murphys Grade Road is considered a facility of regional significance on par with State highways for evacuation purposes. The road provides an important alternate evacuation route to SR 4 for residents of Murphys. Additional evacuation routes include:

- O'Byrnes Ferry Road (Copperopolis)
- Parrott's Ferry Road (Vallecito)
- Independence Road
- Jesus Maria Road
- Michel Road
- Camanche Parkway
- Red Hill Road
- Pennsylvania Gulch Road
- Camp 9
- Ospital/Southworth Roads

- Burson/Olive Orchard Roads

Calaveras County Bridges

The inventory of local bridges in Calaveras County by agency is included in Appendix 2E. The length, year built, and width is provided.

CHAPTER 3: POLICY ELEMENT

The Policy Element in the Regional Transportation Plan Update (RTP) identifies transportation issues in the Calaveras County region, describes the goals, objectives, and policies for each of the transportation modes, and the implementation strategies within the Plan to meet the identified goals. The Performance Measures in the RTP will serve as a guide to monitor the transportation system in Calaveras County.

A summary of State and regional transportation issues in Calaveras County are identified below, providing the basis for the recommended goals, objectives, and policies identified for the 2012 RTP. The CCOG will need to consider current and continued funding constraints at both the State and Federal levels when formulating policies and evaluating new policy directions for the 2012 RTP update.

STATEWIDE ISSUES

The following have been identified by the California Transportation Commission (CTC) as important statewide transportation issues for 2011 and beyond. The relevant activities of the CCOG in Calaveras County aimed at addressing the States' goals are further summarized.

PRESERVATION OF THE STATE'S TRANSPORTATION SYSTEM.

The State's existing transportation system consists of State highways, local streets and roads, aeronautics, public transit, rail and ports. All modes are critical to the safety, mobility, and economic vitality of California.

Currently, California's transportation system is deteriorating, while demand is increasing and maintenance costs are rising. This trend affecting the State adversely affects the operational efficiency of key transportation assets, hinders mobility, commerce, quality of life, and the environment. A lack of sufficient funding to preserve and maintain California's aging infrastructure exacerbates this trend.

As a vital link in the State's transportation network, local streets and roads represent approximately 81 percent of California's roads. The "Statewide Local Streets & Roads Needs Assessment", prepared for a broad coalition of local and regional agencies in March 2009, rated the pavement condition of the majority of the State's local streets and roads as "at risk", and likely to deteriorate to "poor" in the next 25 years. Without significant funding increases, the report estimated the unfunded backlog of maintenance and rehabilitation work at $37 billion today, and $79 billion in 2033. The same report indicates that Calaveras County needs approximately **$340 million** over 10 years to bring the transportation system to an acceptable maintenance level.

Note: The County of Calaveras maintains an inventory of County maintained roads to identify their functional status. The County also surveys the road system and maintains a database. This data is integrated into the current Pavement Management System (PMS) for maintenance planning.

FEDERAL TRANSPORTATION RE-AUTHORIZATION AND CLIMATE CHANGE LEGISLATION.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: Legacy for Users (SAFETEA-LU) legislation lapsed on September 30, 2009. The greatest challenge for re-authorization is the insolvency of the Highway Trust Fund. Additionally, the implementation of climate change policies, both at the national and state level, will require funding above and beyond current funding levels. In 2012, Congress will have the opportunity to pass re-authorization legislation that can affect many American priorities: economy and jobs, national security, energy policy, gas prices, environmental stewardship, and climate change.

The California Transportation Commission (CTC) has embraced the following principles for transportation financing in California and asked the Legislature to refer to these principles as opportunities to enhance transportation funding:

- Ensure the financial integrity of the Highway and Transit Trust Funds
- Rebuild and maintain transportation infrastructure
- Establish goods movement as a national economic priority
- Enhance mobility through congestion relief within and between metropolitan areas
- Strengthen the Federal commitment to safety and security, particularly with respect to rural roads
- Strengthen comprehensive environmental stewardship
- Streamline project delivery

INNOVATIVE PROJECT DELIVERY METHODS TO ADVANCE THE DELIVERY OF TRANSPORTATION PROJECTS.

Authorizing projects for design-build procurement and approving projects for public-private partnership agreements have been a central element of the Commission's agenda for 2010 and 2011. The Commission will continue to employ lessons learned from its accomplishments for the successful application of these procurement options in the future.

Transportation project delivery and oversight is a long-standing and on-going function of the CCOG in Calaveras County. The following tasks are proposed to carry out the Overall Work Program:

- *Submit quarterly project status reports to Caltrans*
- *Monitor STIP, RSTP, TE, and CMAQ project implementation and support*
- *Participate in coordination meetings with Caltrans to discuss changes in project scope, budget and schedule*
- *Process allocation requests from local project sponsors*

IMPLEMENTATION OF SENATE BILL (SB) 375.

Senate Bill 375, which requires the coordination of planning decisions and investments in transportation with land use and housing, will require key legislation and dedicated funding for successful implementation. As California is leading the nation in addressing the issues of climate change, the Commission is closely working with other State agencies and the Legislature to promote a coordinated approach to strategic infrastructure decisions. The Commission supports the Strategic Growth Council created by SB 732 (Chapter 729).

Recognizing that the transportation sector is the largest contributor to greenhouse gas (GHG) emissions, the Commission has moved to develop early action and long-term strategies to reduce GHG emissions in transportation decisions. In 2008, after passage of the Global Warming Solutions Act of 2006 (Chapter 488, Statutes of 2006), the Commission adopted an addendum to the 2007 RTP Guidelines. This addendum addressed climate change and GHG emissions during the RTP process by promoting land use and modeling strategies to be considered in the preparation of RTPs. Separate approaches are outlined for MPOs and RTPAs, depending on their population and growth patterns. This focus has continued in the 2010 RTP Guidelines.

Note: The CCOG has included "UPlan and Data Development" as a work element in their OWP. This is part of a Blueprint Planning Grant through Caltrans. The purpose is to expand the modeling and outreach being done as part of the 2012 RTP and County of Calaveras General Plan Update efforts. The final product of this effort will be visual mapping displays and analytical impact reports which assess transportation impacts of General Plan growth scenarios. Note: The focus will be an effort that encourages transportation investments in key locations, addresses regional connectivity, and addresses economic development.

INNOVATIVE FINANCING AND THE IMPACT OF DEBT SERVICE ON FUTURE TRANSPORTATION RESOURCES.

The lack of adequate public funding for transportation projects has increased the urgency to borrow against future state revenues. Although borrowing of expected future revenues can accelerate the delivery of priority projects, the resulting debt service must be kept at a level so it does not jeopardize future transportation programs. The outcome of borrowing from future funds contributes to uncertainty in programming future projects for the County.

REGIONAL AND LOCAL ISSUES

Primary regional and local issues continue to revolve around the ongoing state financial crisis. The backlog of unfunded projects continues to be a problem on all local roads of regional significance. The State Transportation Improvement Program (STIP) guidelines do allow local road rehabilitation projects to be funded from STIP funds. However, STIP revenues have not been available for local roadway rehabilitation projects in Calaveras County for several years because of the emphasis on the Tri-County MOU high priority projects. To add to the overall problem, maintenance projects on local roads are not STIP eligible. Consequently, the County has to rely on State highway user's tax (HUTA) and motor fuel sales tax for routine maintenance and these sources are not adequate to maintain the transportation system in a desired state of repair.

Table 3.1 provides a non-prioritized summary of Calaveras County's most important transportation issues by mode and facility type.

TABLE 3. 1 CALAVERAS COUNTY REGIONAL AND LOCAL TRANSPORTATION ISSUES

Context	Issue	Potential Solution
Roadway System		
State Highways	Increasing traffic congestion and decreasing LOS on SR 4 due to increased traffic volumes and lack of passing opportunities	Implementation of roadway capacity projects and intersection improvements in RTP
Countywide	Lack of passing opportunities on state highways and inadequate right-of-way (ROW) 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 ROW to improve safety
Countywide	Congestion resulting from land-use decisions	Consider the traffic impacts to inter-regional circulation when evaluating proposed developments. Continue to mitigate impacts throughout RIM fee and Benefit Basin programs
City of Angels	Unacceptable future LOS (LOS F) at SR 4 and SR 49 southern and northern intersection during the PM peak hour as identified in the RIM.	Improvements to SR 4/49 north and south intersections as well as the eastern bypass intersection with SR 4
Copperopolis	Congestion on O'Byrnes Ferry Road and other collectors due to projected growth through 2025	Continue Benefit Basin Program to mitigate traffic impacts. Replace the O'Byrnes Ferry Bridge
Arnold	Congestion on SR 4 that serves as "Main Street" to downtown	Implementation of Arnold Community Plan that provides for a shift in planned development away from SR 4; limit driveways along SR 4; extension of several local streets
Murphys	Congestion in downtown due to on-street parking	Implementation of recommendations in the 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 Mobility Plan that identifies improvements to the existing collector road system and priority location for new transportation facilities
Valley Springs	Congestion on SR 12 at SR 26 intersection	Reconstruct SR 12/SR 26 intersection
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	Secure new local sources of maintenance funding such as sales tax initiatives

TABLE 3. 1 CALAVERAS COUNTY REGIONAL AND LOCAL TRANSPORTATION ISSUES

Local Roads	Lack of emergency access routes throughout the County	Implement emergency access requirements recommended in the Calaveras County Circulation Study and the 2012 RTP
Goods Movement		
Countywide	Outdated road and highway geometrics, lack of adequate shoulders and passing lanes., number of distressed lane miles on ate highways and county roads.	Pursue Highway Safety Improvement Program (HSIP) funds for state or local roadways with significant collision history and/or safety concerns. Seek additional maintenance funding for state and local truck routes.
Transit		
Calaveras Transit Local Service	Limited funding to improve transit frequency and quality of service while continuing to serve transit dependent riders in outlying areas	Meet "Unmet Transit Needs" as funding allows
Interregional Service	Costs for providing service is not fully shared with adjacent counties. In addition, demand for intercity services is unknown and cost of providing a service form Calaveras County to an urbanized area is very costly	Work with adjacent county RTPAs to implement cost-sharing arrangements for interregional transit service. Calaveras Transit will be conducting an intercity transit feasibility study in 2012/13 to assess demand and feasibility of commuter and other intercity transit service from Calaveras County
Aviation		
Maury Rasmussen Field	Protect airport operations from inappropriate adjacent development. Acquire or protect land around airport for future airport projects. Maintain existing airport facilities in safe operating condition	Implement Airport Land Use Plan and update as needed. Work with neighboring land owners to acquire additional property for hangar expansion
Non-Motorized Facilities		
Bike and Pedestrian Facilities	Lack of a consistent network of bicycle and pedestrian facilities within and between communities	Implement priority improvements in the Bicycle Master Plan for existing and future facilities. Implement non-motorized travel policies in conjunction with private development and public projects. Implementation of recommendations contained in community plans. Implement Complete Streets Policy. Adoption of BMP by County.
Air Quality		
Environmental Impacts	Non-attainment status for state hourly ozone standard and federal 8 hour ozone standard	Implement air quality strategies listed in the latest State Implementation Plan (SIP) for northern California when the SIP is adopted.

Source: CCOG; Calaveras County; City of Angels

GOALS, OBJECTIVES, AND POLICIES

The RTP goals, policies and objectives are intended to guide the development of the transportation system and improve the quality of life for citizens in Calaveras County. The following definitions help differentiate the planning focus of a goal, objective, and policy:

A *goal* is the end toward which effort is directed; it is general and timeless.

An *objective* is a specific end, condition or state toward attaining a goal. It is achievable, measurable and time specific.

A *policy* is a direction statement that guides actions for use in determining present and future decisions. A policy is based on RTP goals and objectives as well as the analysis of data.

The goals, objectives, and policies for each component of the Calaveras County transportation system are provided below. In 2007, these goals and policies were consistent with the policy direction of the Calaveras County General Plan, the Calaveras Council of Governments, and the City of Angels General Plan relative to the regional transportation system. The goals, objectives and policies for the 2012 RTP continue to reflect the desired outcomes of the CCOG, Calaveras County and the City of Angels. *It should be noted that after the adoption of the Calaveras County General Plan, the RTP may be updated to reflect changes needed to address significant revisions to land use designations and diagrams or any policies in the General Plan update.*

REGIONAL GOALS

Goal 1: Provide a high degree of mobility for people and goods in Calaveras County using multi-modal solutions which preserve the rural character of the region.

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

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

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

Policy 1.3: Encourage land use patterns that provide for infill, are transit oriented, bicycle and pedestrian friendly, and provide for efficient use of underdeveloped land, and existing and planned transportation resources.

Objective 1B: 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 1C: 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 1D: Maintain acceptable levels of service (LOS) on all County roads and State highways as funding allows.

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

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

Objective 1E: Reduce the demand for travel by single-occupant vehicles through transportation demand management and transportation system 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 1.10: Promote public awareness of Calaveras Transit and bicycle and pedestrian options 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 feasible.

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

Policy 1.13: Implement transportation projects which increase safety for trucks and promote efficient truck access to commercial and industrial land uses.

Goal 2: Promote equity for all system users

Objective 2A: Utilize open and equitable processes to scope, prioritize, fund and construct 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. *Control costs to help ensure the greatest benefit to all County residents.*

Policy 2.3: Include, in project analysis, the identification and mitigation of all impacts on all affected interest groups.

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

Objective 3A: Promote transportation policies and projects that support a sustainable environment, in particular the preservation of open space and agriculture.

Policy 3.1: Minimize conflicts with agricultural land, use of Williamson Act properties etc. when developing transportation projects.

Policy 3.2: Encourage compact development patterns to minimize construction of roads and impacts to agricultural and open space.

Policy 3.3: Coordinate with federal and state agencies and local air management districts on matters related to the air quality conformity process specified in the latest federal clean air requirements and legislation for transportation projects. (transportation related)

Objective 3B: 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 (AB 32).

Policy 3.4: Include ITS, non-motorized, demand management and system management projects, or other transportation improvement projects which will consolidate vehicle trips and reduce congestion in Calaveras County as part of a multi-modal balanced system.

Policy 3.5: Adopt land use-transportation guidelines and zoning ordinances that encourage walking, biking, transit, carpooling, and other non-auto 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 effect on climate changes.

Policy 3.6: Use Transportation Planning Grant funding to implement and plan projects which provide awareness of and compliance with climate change guidelines and support the development and implementation of the best practices in community and regional planning.

Goal 4: Support balanced economic development of the region, emphasizing non-auto oriented development strategy.

Objective 4A: 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.

Policy 4.3: Encourage mixed-use development where feasible.

STATE HIGHWAYS

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

Objective 5A: 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 (LOS) on State highways in Calaveras County.

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

Policy 5.3: The CCOG will work with other regional public and private partners to maximize the benefits of transportation investments in the region.

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

Objective 6A: Reduce pedestrian/vehicle fatality collisions 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 develop standards for crosswalks, signage, lighting, travel lanes, and speed limits that enhance pedestrian travel, and 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 need for mobility and access, and enhance local circulation off of arterial roadways.

Objective 7A: 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 developments and to newly-created parcels shall meet County standards and City 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 Calaveras Countywide Traffic Circulation Study and City road standards.

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

ROAD MAINTENANCE

Goal 8: Maintain local roads in a safe condition.

Objective 8A: Program projects which will help reduce the backlog of "deferred maintenance."

Policy 8.1: CCOG will coordinate with the County and the City of Angels in identifying maintenance funding such as tax initiatives or street assessments.

Policy 8.2: As much as feasible, provide funding for maintenance projects in a timely manner.

Policy 8.3: Pursue shoulder improvements and traffic calming strategies where appropriate to enhance pedestrian/non-motorized travel.

PUBLIC TRANSIT

Goal 9: Develop and maintain affordable, comprehensive and effective public and private transportation for County residents – Consideration should be given to persons with disabilities, elderly residents and others with specialized transportation needs.

Objective 9A: Monitor monthly management reports and performance measures for Calaveras Transit and adjust service and schedules based on needs and funding availability.

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

Policy 9.2: Reach and maintain the mandatory 10 percent farebox recovery ratio required by the Transportation Development Act for public transportation in Calaveras County.

Objective 9B: 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: Continue to direct funds to the Calaveras Transit Bus Shelter Improvement program.

Objective 9C: Incorporate the need to serve the growing elderly population in Calaveras County when preparing long-range transportation plans.

AVIATION

Goal 10: Enhance, maintain, and improve the Calaveras County Airport in order to support general aviation and disaster emergency services.

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

Policy 10.1: Prevent new land uses and zoning surrounding the County's airport (Maury Rasmussen Field) 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 by integrating truck and bus transport requirements into all development and transportation planning. Consider the safety and desirability of local communities when making goods movement decisions.

Objective 11A: Install passing lanes, turnouts, shoulders and other low-cost improvements to minimize adverse traffic impacts from truck traffic.

Objective 11B: Promote efficient utilization of truck transport through transportation and land use decisions, and the designation of appropriate truck routes.

Objective 11C: Keep the trucking industry informed about truck impacts to County and City facilities and lessen the impact wherever possible.

Policy 11.1: 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 12A: Implement projects in the Calaveras County Bicycle Master Plan and the Calaveras County Pedestrian Master Plan as funding allows.

Policy 12.1: As much as feasible, provide funding for design of transportation facilities with primary consideration given to the provision of safety for school children, and local residents on existing and proposed facilities.

Policy 12.2: As much as feasible, provide funding for design of comprehensive network of Class I, II, and III bicycle and pedestrian facilities that will encourage walking and biking for residents and visitors.

Policy 12.3: Require new roads constructed as part of a land division to include pedestrian and bicycle facilities in accordance with the County or City bicycle and pedestrian plans.

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

Policy 12.5: Consider, where appropriate, the provision for other "low speed" travel modes both within and between communities, such as golf carts, neighborhood electric vehicles (NEVs), equestrians, and cross-country skiing.

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

Policy 12.6: Provide connections to the bicycle network from all existing and future transit facilities, transfer stations and terminals in Calaveras County.

Policy 12.7: Provide bicycle support facilities such as bicycle racks and storage lockers at appropriate locations such as park-and-ride facilities, employment centers, schools, commercial centers, government services, visitor centers, and other points of interest.

MANAGEMENT OF THE TRANSPORTATION SYSTEM

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

Objective 13A: Work with Caltrans and County staff to periodically review traffic operations along State highways, major County roads, and major City streets, through the use of updated traffic models and Geographical Information Systems (GIS) transportation-related data.

Policy 13.1: Promote signal timing, access management, transit priority treatments, collision 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 community commercial centers to help decrease congestion while aiding the local economy.

TRANSPORTATION FUNDING

Goal 14: Ensure that the allocation of transportation funding dollars maximizes the "highest and best use" for interregional and local projects.

Objective 14 A**:** Identify and allocate funding and resources for building, operating, and maintaining the existing and future transportation system.

Policy 14.1: Use established selection and ranking criteria to recommend projects in the RTP to maximize limited dollars.

PROGRAM-LEVEL PERFORMANCE MEASURES

Performance measures are included to help assess the effectiveness of implementing the RTP. Transportation performance measures are objective, measurable criteria used to evaluate the performance and effectiveness of the transportation system and government policies, plans and programs. Performance measures use statistical evidence to determine progress toward specific and defined objectives. This includes both evidence of fact, such as measurement of pavement surface smoothness or the percentage of transit service delivered on-time (quantitative) and measurement of customer perception determined through customer surveys (qualitative). Performance measures help set goals and outcomes, detect and correct problems, and document accomplishments. While performance measures are also applicable to individual projects, the RTP program performance measures are applicable to the regional transportation system as a whole. Performance measurement should involve the existing transportation system as well as the future transportation system.

By examining long-term performance of the existing system, the RTP can monitor regional trends and identify regional transportation needs for inclusion in future RTPs. Forecasting future system performance in the RTP will assist in comparing system alternatives, facilitate comparisons across modes, and facilitate assessment of priorities in the action element of the RTP. These priorities will link to plan implementation through the RTIP, ITIP and FTIP.

Table 3.2 shows program-level performance measures selected for the 2012 RTP update that reflect the goals and objectives adopted in the RTP.

TABLE 3. 2 RTP PROGRAM LEVEL PERFORMANCE MEASURES

RTP Objective	Data Source	RTP Measure	RTP Desired Outcome
1A. Mobility/Accessibility for all modes of the transportation system	Caltrans' Traffic Volumes, Historical Growth Rates, Transportation Concept Reports (TCRs), Transit Operations Reports	Minimum Acceptable LOS on average daily basis, transit ridership	Increase mobility/accessibility for all residents and modes
1B. Maintenance	CDPW, City of Angels, CCOG, Pavement Management System data	Number of lane miles that need rehabilitation and/or resurfacing; number of maintenance projects completed on all facilities (state and local); pavement condition index (PCI)	Coordinate with Caltrans on State highway projects to maintain State highways at acceptable maintenance levels and reduce lane miles needing rehabilitation or resurfacing. Fund projects to maintain the condition of roads at or above the minimum acceptable maintenance condition as set by the City or County

TABLE 3. 2 RTP PROGRAM LEVEL PERFORMANCE MEASURES

RTP Objective	Data Source	RTP Measure	RTP Desired Outcome
1C. Land Use	Caltrans, City, and County (General Plan) traffic volumes	Existing or forecasted LOS along roadway corridors; provide acceptable LOS in peak month(s) by 2035; LOS policy by functional class of roadway	Integrate land use decisions with the existing and future capacities of the transportation system
1D. Acceptable LOS	Traffic volumes from Caltrans, County and City of Angels	Acceptable roadway and intersection LOS	Maintain acceptable LOS on all state highways, county roads, city streets and intersections
1E. Transportation Demand Management (TDM)	Foothill Rideshare	Number of Foothill Rideshare registered users	Reduce the demand for travel by single-occupant vehicles and for travel on congested routes at peak hours by increasing rideshare use
1F. Truck Safety	Caltrans truck volumes, CDPW, CHP, City of Angels	Number of projects that increase passing lanes, turnouts, and widen shoulders on state highways and county and city roads	Provide for safe truck travel on county and city facilities by reducing the number of collisions and incidents involving trucks
2A. Project Prioritization	Traffic counts, traffic volume forecasts; cost estimates by Caltrans, County and City; Calaveras Transit; SWITRS	Construction cost per new trip served Improvement in LOS Increase in transit ridership	Use both qualitative and quantitative measures to prioritize projects
3A. Environmental Quality	Environmental thresholds or significance criteria adopted in the General Plan and/or independently for application in CEQA documents.	Transportation policies and projects that support a sustainable environment	Avoid or minimize significant impacts from transportation improvements
3B. Greenhouse Gas Emissions	California Air Resources Board (CARB)	Maintain compliance with State air quality standards and procedures (SB 375)	Reduce GHG emissions consistent with statewide emissions and VMT targets for rural RTPAs
4A. Economic Well Being	Caltrans traffic volumes and volumes listed per PSRs and TCRs; County and City traffic volumes from the travel demand model; occupancy rates in large commercial developments (commercial real estate sources); EDD	Minimum acceptable LOS on average daily basis (ADT) and in peak month(s); increased sales tax revenues; employment rates from EDD	Maintain and promote the desirability of the region by directing appropriate investments in transportation infrastructure. Encourage the use of leveraged funds through MOUs between counties

TABLE 3. 2 RTP PROGRAM LEVEL PERFORMANCE MEASURES

RTP Objective	Data Source	RTP Measure	RTP Desired Outcome
5A. Safety on State Highways*	Caltrans Collision Reports, CHP SWITRS, CDPW, County, City of Angels	Collision rate on State highways compared to similar facilities in District 10 and statewide	Reduce the number of collisions on Calaveras County State highways. Completion of projects identified in TCRs, SHOPP, and the RTP
5B. Safety on County and Local Roads	Calaveras County, City of Angels, California Highway Patrol (SWITRS)	Number of fatal, injury and property damage collisions per vehicle miles traveled	Recommend road and intersection improvements to reduce the frequency and severity of collisions
6A. Pedestrian Safety	Caltrans, CDPW, City of Angels, CHP SWITRS	Number of fatalities from pedestrian involved collisions	Reduce fatalities by 25% consistent with the California Strategic Safety Plan 17 Challenge Areas
7A. New Roads	Calaveras County, City of Angels road ordinances	Amount of new maintained road mileage	Consistent application of road standards used by the County and City
8A. Deferred Maintenance	Caltrans, CDPW, City traffic volumes	Number of maintenance and system preservation projects completed	Reduce the backlog of deferred maintenance by 25 percent by 2035.
9A. Transit Effectiveness	Monthly/Quarterly transit operations reports, on-board transit surveys	Transit ridership; fare box recovery ratio	Increase in ridership each 5-year period (2015, 2020, 2025, 2030, 2035); Maintain 10 percent fare box ratio
9B. Transit Usage in Outlying Areas	Monthly/Quarterly transit operations reports, on-board transit surveys	Boarding and alighting activity at transit stops in outlying areas	Increase ridership by promoting park and ride lots, installing bike racks/lockers near transit stops, and installing benches and shelters
9C. Transit Service to Elderly and Disabled	Monthly/Quarterly transit operations reports, on-board transit surveys	Meeting "unmet transit needs" in the County; monitoring ridership by age	Improve effectiveness of transit service and para-transit for senior and disabled citizens
10A. Aviation	Airport Special Plan	Implementation of land use, zoning and development policies of the Airport Special Plan	No new incompatible developments in the Airport Special Plan area
11A. Improved Goods Movement and Circulation	Caltrans, CCOG, CDPW, City of Angels	Number of new commercial developments with truck circulation requirements	Promote the efficient utilization of truck transport through transportation circulation and land use decisions
11B. Truck Impacts to Local Facilities	Calaveras Community Groups	Number of truck complaints from citizens	Lessen the impact of truck circulation wherever possible

TABLE 3. 2 RTP PROGRAM LEVEL PERFORMANCE MEASURES

RTP Objective	Data Source	RTP Measure	RTP Desired Outcome
12A. Bike and Pedestrian Infrastructure	Calaveras County CDPW, City of Angels, CCOG	Number of miles of new bikeway/pedestrian projects constructed	Implement priority projects from Calaveras County Bicycle Master Plan and Calaveras County Pedestrian Master Plan as funding allows
12B. Increased Bike Usage to Improve Air Quality	CCOG surveys and 2010 Census	Journey to work percent by bicycle	Increase bicycle trips to reduce vehicle congestion and improve air quality
13A. Traffic Operations	Caltrans; CDPW; City of Angels; CCOG	Implement Tier 1 and Tier 2 RTP projects and programs	Through coordination and project implementation improve LOS on state and local facilities
14. Reconstruction of Non-Standard Roads	CDPW	CDPW Road Ordinance; ASHTO	Conformance standards

** Collisions or fatalities per 1,000,000 vehicle miles of travel*
Source: CDPW; City of Angels; CCOG; Fehr & Peers 2012.

APPLICATION OF PERFORMANCE MEASURES

The program level performance measures in Table 3.2 are intended to help guide the selection of RTP project priorities, and to monitor how well the transportation system is functioning, both now and in the future. The application of performance measures and the locations of supporting data within this RTP are identified below:

Performance Measure 1A – Mobility/Accessibility *(Goals 1, 2, 5, 7)*

This performance measure monitors how well State and County roads are functioning based on level of service (LOS) (see Tables 2.2 and 2.3 for LOS descriptions). Generally, the acceptable LOS for State highways is "LOS D" in the more urbanized areas and "LOS C" in the rural portions. The County and City of Angels has established "LOS C" or better for their local facilities. For State facilities, the goal is to maintain the concept LOS as envisioned in the Transportation Concept Reports (TCR) for each facility. Summary sheets for each facility are included in the appendices. Table 2.5 shows the current peak hour volumes and LOS for RTP study roadways. Table 2.6 lists the roadway segments that are at or exceed the desired LOS.

Performance Measure 1B – Maintenance (Goals 1, 8)

Like most rural counties in the State, Calaveras has a sizeable backlog of deferred maintenance due to the lack of adequate funding. The maintenance measure monitors the condition of pavement including the number of distressed lane miles and also the backlog of maintenance from reports and surveys. Table 2.1 shows the maintained lane miles for federal, state, and local facilities. The current backlog of maintenance needs in the County just for local facilities is estimated at $340 million and without additional funding, it will continue to grow.

Performance Measure 1C and 1D – Land Use and Acceptable LOS (Goals 1, 3, 4)

These performance measures monitor the LOS in peak periods and peak months as shown in Tables 2.7 and 2.8. The concept LOS from TCRs is reviewed during RTP updates to determine if additional circulation improvements are needed beyond what is planned. Projects proposed in the TCRs for state facilities are designed to meet the Concept LOS by the horizon year 2035. Intersection operations are reviewed for consistency with proposed improvements on state and city facilities.

Performance Measure 1E – Transportation Demand Management (Goals 1, 2, 4, 6, 13)

The shifting of single auto travel to transit is monitored through changes in traffic volumes and increases in transit effectiveness and ridership. Table 2.11 provides key transit performance indicators including ridership and cost measures. Data in this table is updated from monthly operational reports prepared by Calaveras Transit. In addition, the "Unmet Transit Needs" process monitors the implementation of transit improvements recommended by the Social Services Transportation Advisory Council (SSTAC) and CCOG. That process and findings are discussed in Chapter 2.

Performance Measure 1F – Truck Safety (Goals 1, 5, 11)

Truck traffic continues to drive the need for roadway restoration and maintenance, as evidenced by the number of reconstruction and rehabilitation projects recommended in the RTP. High truck volumes contribute to travel delay and congestion by slowing traffic to less that desired speeds. Table 2.9 displays the AADT for various segments on State facilities and shows the percent of daily truck traffic. Changes in these volumes or number of collisions on a given facility can trigger the need to consider additional ITS technologies and/or physical improvements such as truck climbing lanes and turnouts.

Performance Measure 2A – Project Prioritization (Goals 1, 2, 14)

This measure considers both qualitative and quantitative methods to prioritize projects. Table 2.6 and 2.8 monitor changes in existing and future traffic volumes through application of the County's travel demand model. Project costs with inflation are developed in Appendices 4A through 4L. Safety considerations are monitored in Tables 2.15 and Table 2.16. Volume changes on specific roads or segments can be compared to project costs proposed for the same segment to develop a cost per new trip. This index compares the construction cost to implement the project relative to the number of new trips that will benefit from the project. It provides a quantitative means to rank highway projects relative to each other. The cost effectiveness measure can be applied to County roads, City streets, and Tribal roads where future traffic volumes are estimated. The comparison will show an order of magnitude and can be used to help identify the anticipated benefits from each project recommended in the RTP and RTIP.

Performance Measure 3A and 3B – Environmental Quality (Goals 1, 3, 4, 5,)

These measures are applied before construction of a project. Each project must comply with environmental criteria from CEQA (State) and/or NEPA (Federal) depending on whether the funding source is a Federal or State program. In addition, the RTP is subject to CEQA and treated accordingly. Policies and programs within the RTP must meet the intent of environmental and air quality regulations as they apply to transportation improvements. The 2010 RTP guidelines now require that jurisdictions address climate change and GHGs during the RTP process. A new section to the RTP addresses policies and measures that Calaveras County either has in place or will consider in the future to help reduce VMT and ultimately GHG levels as required by Statute.

Performance Measure 4A – Economic Well Being (Goals 1, 2, 3, 4, 7, 10, 11, 13, 14)

Calaveras County experiences significant through traffic on State highways: SR 4, SR 49, and SR 12. As a result, the LOS during peak periods has the potential to reach higher LOS levels ("LOS E" or higher). This measure monitors the LOS during the peak summer months. In addition, agricultural and goods movement commodity flows are very important to the County to maintain its economic status. These flows occur throughout the year. Transportation improvements that maintain these commodity flows and connectivity as well as tourist traffic will help maintain and/or improve the overall economic well-being of Calaveras County residents.

Performance Measure 5A – Safety on State Highways (Goals 1, 5, 6)

Safety is monitored through the number of collisions and the collision rate (collisions per 1,000,000 miles of travel) for State highways. Table 2.15 and 2.16 provides a three and half-year summary of collisions that occurred on State highways between 2008 and 2010. The pie graphs under Safety provide a percentage breakdown of the types of collisions with percentages for injury, fatal and property damage only. This data will be updated during each RTP update. Specific projects that are intended to improve safety will be supported through Caltrans, the CCOG, County and City of Angels.

Performance Measure 5B – Safety on County and Local Roads (Goals 1, 7, 8, 11)

SWITRS data will be used to monitor the number of fatal and injury collisions by location to determine if improvements are needed. Table 2.15 and 2.16 show a three and a half-year summary of collisions on select facility segments in both the County and City of Angels. Pie charts showing the percent in injury, fatal and property damage only collisions are provided and will be updated in future RTP updates.

Performance Measure 6A – Pedestrian Safety (Goals 6, 8, 12)

This measure monitors pedestrian injuries and fatalities based on SWITRS data. Tables 2.15 and 2.16 summarize injury collisions for the County and City of Angels.

Performance Measure 7A - New Roads (Goal 7)

This measure ensures a standard and consistent application of General Plan road standards used by the County and City of Angels to bring a road into the transportation system.

Performance Measure 8A – Deferred Maintenance (Goals 1, 8)

This measure monitors the backlog of deferred maintenance and distressed lane miles of pavement within the County and District 10. Table 2.1 provides a summary of the maintained road miles in the County. The project lists in Appendix 4A – 4L include a category for "system preservation" that includes road improvements designed to reduce maintenance needs. The number of projects proposed and implemented help measure success in this category.

Performance Measure 9A, 9B, 9C – Transit Effectiveness (Goals 1, 9)

Table 2.11 provides a summary of Calaveras transit services and performance measures through fiscal year 2010/2011. The farebox recovery ratio provides one means to monitor the performance of the transit system before and after transit projects are implemented. The current farebox (2010/11) ratio for Calaveras Transit is approximately seven percent – slightly below the 10 percent required by the Transportation Development Act (TDA) legislation. The RTP will continue to emphasize projects and programs that maintain the TDA required farebox ratio of 10 percent or higher. Transit frequency is monitored and increased as funding allows. The "unmet transit needs" process will continue to provide input into the RTP process for older adults and persons with disabilities.

Performance Measure 10A – Aviation (Goals 1, 10)

This performance measure reviews the airport land use plan to ensure goals and policies are implemented with regards to safety and development around the airport.

Performance Measure 11A and 11B – Truck Circulation (Goal 1, 11)

Truck circulation is monitored to ensure adverse impacts to local road maintenance and communities are minimized. Tables 2.6, 2.8 and 2.9 help monitor changes in volumes and LOS and percentages of truck traffic on state and local roads. In addition, the RTP discussion on safety and the data provided in Tables 2.15 and 2.16 help monitor changes in the collision picture for the county and City of Angels.

Performance Measures 12A and 12B – Bike and Pedestrian Facilities (Goals 1, 2, 3, 4, 6, 9, 12)

The implementation of bicycle and pedestrian improvements recommended in the Bicycle Master Plan and the Pedestrian Master Plan are considered for inclusion in the RTP. Appendix 4E, 4F and 4G provide a list of recommended non-auto improvements. The bicycle mode split for journey-to-work from the 2010 census and future surveys will provide updated data to see how well the bike and pedestrian system is functioning.

Performance Measure 13A – Traffic Operations (Goals 1, 2, 3, 4, 5, 7, 13, 14)

This measure is intended to recommend funding where it is needed, not just based on populated locations or LOS measures. The CCOG recognizes that in rural areas, some degree of geographical equity is necessary so that the majority of transportation improvement concerns are addressed countywide and not just in population centers. The recommended projects within the County attempt to reflect this geographical equity and minimize the funding gap between need and funding allocations. The CCOG will work with Caltrans and the CTC on the location of STIP and SHOPP projects within the County. The measure will help ensure that all roadways are considered, including the State highway system, County roads, City streets, and Tribal roads when RTP and RTIP projects are recommended. It will also help monitor the State's policy for "Context Sensitive Solutions" that focus on projects and approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation goals and policies. Environmental justice issues are reviewed when projects are recommended within communities using US Census Bureau data to ensure an equitable distribution of benefit and impacts.

CALIFORNIA STRATEGIC HIGHWAY SAFETY PLAN (SHSP) (2010 UPDATE)

The California Strategic Highway Safety Plan (SHSP) requires that the RTP show a strong link between the SHSP planning processes described in Title 23 U.S.C. 148 and the regional planning process. The SHSP addresses 17 challenge areas. The RTP includes several goals, policies, and objectives to improve the overall safety for all modes in Calaveras County. Goals 1, 4, 5, 6, 8, 9 and 10 provide for the development of a safe and efficient system for all modes that expands choices and strengthens the relationship between transportation and land use. Specific objectives are included to protect the region's investment by preserving the condition of the existing system; applying new technologies to make travel more reliable, convenient and accessible; minimizing land use conflicts, employing context-sensitive solutions, and maximizing safety for all modes. Other RTP objectives that are relevant to the SHSP are:

- Preserve farm land and open space by integrating transportation and land use planning.
- Establish consistency and/or linkages between transportation needs and land use plans.
- Promote non-auto modes of transportation by promoting development that is transit-oriented, bicycle friendly, and walkable.
- Support public transit programs and maximize County-wide transportation services and inter-County connections.
- Increase total mileage of safe pedestrian walkways and sidewalks.
- Support goods movement throughout the County.
- Identify and allocate funding and resources for building and operating and maintaining the existing and future transportation system.

Three E's of Sustainability:

Environmental Quality

Economic Vitality

Social Equity

2030 CALIFORNIA TRANSPORTATION PLAN (CTP) AND INTERREGIONAL BLUEPRINT

The California Transportation Plan and Interregional Blueprint provides a "vision," goals, and strategies for improving transportation in California. The vision is to provide a transportation system that is safe, effective, reliable, interconnected, and equitable to all users. The plan focuses on safety and increased travel choices for California residents and embodies the three E's for a sustainable statewide transportation system (environmental quality, economic vitality, and social equity). The implementation strategies involve education, collaboration, incentives and promotion, use of advanced technologies, a reexamination of design standards and integration of all modes, and a political presence.

The following concepts and issues are important to Calaveras County and are reflected in the 2012 RTP update:

- The volume of truck transport for commercial and commodity products will likely continue to grow on State highways. The County is impacted by this growth, and the need for improved truck routes, truck parking facilities, and truck access to commercial land uses is an important component of goods movement.
- The cost of transportation for persons with disabilities and low-income groups will likely continue to increase. The RTP recognizes that a more extensive mix of flexible transportation choices and services will improve accessibility for both groups. The transportation system in Calaveras County is striving, through its RTP goals and policies, to be more equitable for disadvantaged groups through the unmet transit needs process, coordination with SSTAC, and coordination with the airport.
- The CTP summarizes three land use practices that have influenced urban design and have had profound impacts on travel behavior. These practices include the lack of coordinated decision-making at the County and State level, single-use zoning, and low-density growth patterns. Calaveras County is experiencing some of these effects through increased traffic congestion and delays in the SR 49 and SR 4 corridors, particularly in Murphys. The RTP is proposing several

projects to improve and monitor LOS to help increase the positive effects of good land use planning and decisions. This approach focuses on the appropriate sizing of transportation infrastructure relative to adopted land-use. In addition, future compliance with AB 32 and SB 375, if mandated, will move Calaveras County toward a smaller carbon footprint by reducing VMT through integrated land use planning and decision making.

- The CCOG recognizes that TDM and alternative mobility options, including walking, biking, and transit, require coordinated land use decisions and improved infrastructure. To this degree, the goals and policies in the RTP are consistent with the County's General Plan to provide a balanced multimodal transportation system that includes non-auto choices for access and mobility. The County is committed to implementing policies and strategies to help reduce reliance on the automobile.

CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS

In 2006, the California State Legislature adopted Assembly Bill (AB) 32 known as the California global Warming Solutions Act (Section 38560.5 of the Health and Safety Code). The bill establishes a cap on statewide greenhouse gas (GHG) emissions and sets forth the regulatory framework to achieve the corresponding reduction in statewide emissions levels.

The passage of AB 32 was an important step given emissions from the transportation sector is the second largest contributor to GHG. According to the EPA, transportation accounts for approximately 27 percent of GHG emission nationwide.

In January 2007, the CTC was requested to review the RTP Guidelines in order to incorporate climate change emission reduction measures. The request emphasized that RTPs should utilize models that accurately measure the benefits of land use strategies aimed at reducing vehicle trips. Commission staff established an RTP guidelines work group to assist in the development of best practices for inclusion in the RTP Guidelines. The 2010 RTP Guidelines provides several recommendations for consideration by rural RTPAs to address GHG. The following strategies from the guidelines have specific application to Calaveras County:

- Emphasize transportation investments in areas where desired land uses as indicated in a city or county general plan may result in vehicle miles traveled (VMT) reduction or other lower impact use.

- Recognize the rural contribution towards GHG reduction for counties that have policies that support development within their cities, and protect agricultural and resource lands.

- Consider transportation projects that increase connectivity or provide other non-auto means to reduce VMT.

The transportation planning literature recognizes three interrelated components that contribute to transportation emissions reductions. Those components include changes in vehicle technology (cleaner burning engines), alternative fuel sources, and vehicle use. The first two components are typically the

responsibility of industry and national governmental interests. Regional and local governments have the ability to affect *vehicle use* by promoting transportation alternatives to the automobile, managing the speed of travel, and managing the demand for transportation. These efforts typically involve goals and policies and/or projects and programs focused on getting people out of their cars and into alternative modes of travel (mode shifting). The following RTP goals have been established for Calaveras County to lessen dependence on the automobile and to promote mode shifting to alternative forms of transportation:

- Goal 1: Promotes a greater use of multimodal solutions to increase mobility and preserve the rural character of the region by requiring connectivity between pedestrian, bicycle, transit and roads facilities; adopting land use designs that reduce single occupant travel; and requiring land use patterns that provide for infill and transit oriented development.

- Goal 2: Promotes equity for all system users and follows best practices for social justice for impacted groups.

- Goal 3: Enhances sensitivity to the environment in all transportation decisions and promotes sustainable environment for open space and agricultural lands.

- Goal 8: Maintains the local road system in a safe condition and promotes projects that provide for traffic calming to enhance pedestrian and bicycle travel.

- Goal 9: Provides for an effective public transportation network to assist elderly individuals and persons with disabilities to meet their transportation needs apart from the automobile.

- Goal 12: Provides a comprehensive system of facilities and amenities for safe bicycle and pedestrian travel.

- Goal 13: Helps to minimize traffic congestion and VMT by employing Transportation Demand Management (TDM) and Transportation System Management (TSM) techniques. These techniques include traffic operations, signal timing and access management, and efficient parking.

The effectiveness of efforts by the CCOG to provide transportation alternatives and to implement TDM and TSM policies and strategies can be measured in terms of reductions in vehicle miles traveled (VMT) or expected growth in VMT. VMT reductions correlate directly with reductions in GHG emissions. Caltrans reports VMT by County on an annual basis. This tends to be a poor data source because it is based on a small sampling of vehicle counts at specific locations and then extrapolated to reflect the entire county. The network travel demand model will greatly enhance the County's ability to forecast VMT based on growth and development that does occur within the County and City of Angels. A summary report (Vehicle Miles of Travel on State Highway System) for Calaveras County was reviewed to determine past

trends in VMT. The Caltrans report (covering the years 2000 through 2010) also includes the local road system. The data shows the following trends:

State Highway System (SHS) - between 2000 and 2006 VMT increased approximately 23 percent or 3.8 percent per year (243 million compared to 299 million) on the SHS. Between 2006 and 2008 (as the economy experienced a recession) VMT decreased by 6 percent (3 percent per year) to 281 million. Since 2008, VMT on the SHS has increased 3.9 percent (1.9 percent per year) and is estimated at 292 million on State facilities in the County.

Local Road System - During the same six year period (2000 – 2006), VMT on the local road system declined approximately 11 percent (-1.8 percent per year) comparing 142 million to 126 million. Between 2006 and 2008 VMT remained fairly flat at 126 million. Since 2008, VMT on local roads has increased 3.9 percent (1.9 percent per year) to an average of 132 million.

A 2008 report by the Victoria Transport Policy Institute "Smart Transportation Emission Reductions - Identifying Truly Optimal Energy Conservation and Emission Reduction Strategies" - Todd Litman, August 2008, states that most current transportation emission reduction programs focus on changing vehicle and fuel type rather than the amount people drive. Mileage reduction strategies tend to be ignored because many people assume that they are difficult to implement and may harm the economic wellbeing of consumers. However, the report also states that many high-mileage motorists would prefer to drive less and rely more on alternative modes, provided those alternatives are convenient, comfortable and affordable.

The CCOG, Calaveras County and City of Angels will continue to monitor population and employment and VMT growth consistent with the RTP and County General Plan. The vast majority of transportation projects focus more on system preservation and less on capacity increases. However, because of the rural nature of the County, some degree of capacity improvement is necessary to help reduce congestion. A system with more free flow has a positive effect on GHG assuming travel speeds do not increase significantly.

Finally, the Calaveras County 2012 RTP recognizes that TDM and alternative mobility options, including walking, biking and transit require coordinated land use decisions and improved infrastructure. To this degree, the goals and policies in the RTP are consistent with the County and City of Angels General Plans to provide a balanced multimodal transportation system that includes non-auto choices for access and mobility. The County and City of Angels are committed to implementing policies and strategies to reduce reliance on the automobile. Existing and future development is concentrated within the County's more developed communities and City of Angels community centers, and is not spread out to envelop existing agricultural lands. As such, the Calaveras County 2012 RTP will support the 2010 RTP guidelines for helping to reduce GHG emissions by reducing trip length to reach activity centers and destinations.

CHAPTER 4: ACTION ELEMENT

The Action Element sets forth projects and programs to address Regional Transportation Plan (RTP) issues and needs identified in accordance with the goals, objectives, and policies from Chapter 3. The Action Element identifies short-range (0-10 years) and long-range (11-25 years) transportation improvements by mode for inclusion in the RTP. The benefits of "new technologies" such as surveillance, data collection, advanced traveler information systems, commercial vehicle operations (CVO), and automatic vehicle location (AVL) systems are discussed as appropriate. These new technologies are consistent with the national Intelligent Transportation System (ITS) architecture and standards Caltrans employs at the regional level. The Action Element includes a discussion of the State and regional planning processes, and the linkage of program level "performance measures" to RTP goals, policies, and implementation measures that are identified in Chapter 3 and the transportation needs identified in Chapter 2.

The Action Element conforms to the short-range and long-range constrained revenues and costs identified in the Financial Element (Chapter 5). In addition, the first five years of improvements identified in the 2012 RTP and 2012 Regional Transportation Improvement Program (RTIP) are consistent with the most recent State Transportation Improvement Program (STIP) fund estimate for Calaveras County adopted by the California Transportation Commission (CTC).

ACTION ELEMENT ASSUMPTIONS

The RTP contains both policy and action oriented direction for implementation of transportation system improvements in the County. The following general assumptions helped guide the development of the 2012 Calaveras RTP:

- The population of Calaveras County will continue to grow at approximately 1 to 2 percent annually through the life of the RTP. No large infusion of commercial or residential development is anticipated over the next 20 years.

- The population of the surrounding Counties of Alpine, Amador, Mariposa, Merced, San Joaquin, Stanislaus and Tuolumne will increase at a rate generally consistent with the State Department of Finance (DOF) population estimates and the general growth trends observed in each county.

- The automobile will continue to be the primary choice for travel by residents of Calaveras County due to the rural nature of the county and low development density (approximately 44 persons per square mile).

- Recreation-oriented travel will continue to affect State highways and major County roadways particularly on SR 4, SR 49, SR 12, and O'Byrnes Ferry Road.

- Fuel prices will remain above $3.00 per gallon and may impact recreational travel patterns if drivers decide to travel less or stay close to home. The County will continue to consider some

mitigation efforts to reduce vehicle miles traveled (VMT) to comply with greenhouse gas (GHG) emissions targets, if established.

- Transit service demand will continue to grow, primarily due to the number of older adults, retirees, and persons with disabilities residing in or moving to the County.

- Local road maintenance and maintenance backlog will continue to be a major issue if a new source of maintenance funding is not identified. The current backlog is estimated at $340 million over 10 years.

- The County anticipates no new influx of major concentrated commercial development. Smaller neighborhood scale infill retail, office, and commercial development will continue to comprise the predominant growth in services. Future growth areas may include Hogan Lake Estates North, Oak Canyon Ranch, Tuscany Hills, and Copper Mill. Each planned development will include a mix of residential and small scale commercial and retail.

- The small population, distributed over a large land area with long distances between residences, services, and employment, will continue to make trips largely dependent on the automobile; therefore, the automobile will continue to be the primary travel mode by residents of Calaveras County. The County will accomplish VMT changes by expanding convenient non-auto modes and by promoting development of destinations and activities closer to residences and businesses.

- The greatest assets of the County will continue to be its natural beauty and geography, natural resources, and the many recreational opportunities it has to offer.

- The available transportation funding from state and federal sources will not keep pace with the transportation needs of the County and City or Caltrans District 10.

PROJECT PURPOSE AND NEED

The RTP guidelines require an RTP to "provide a clearly defined justification for transportation projects and programs proposed in the plan." This requirement is often referred to as the Project Intent Statement or Project Purpose and Need. Caltrans' Deputy Directive No. DD 83 describes a project's "Need" as an identified transportation deficiency or problem, and its "Purpose" is the set of objectives that will be met to address the transportation deficiency. For Calaveras County, each project listed in the RTP project lists includes an assessment of purpose and need indicating the project's contribution to system preservation, capacity enhancement, safety, and/or multimodal enhancements. These broader categories capture the intended outcome for projects during the life of the RTP and serve to enhance and protect the "livability" of residents in the County. The RTP uses the following definitions:

SYSTEM PRESERVATION

This improvement category indicates a project that serves to maintain the integrity of the existing system so that traveler access and mobility are not hindered. Improvements may include repairs to bridges and airport runways, as well as upgrades to existing rail lines and signs, traffic control devices, and striping. In addition, because Calaveras County is rural and contains several small communities, the lack of maintenance funding has resulted in a large amount of "deferred maintenance" that has actually lapsed into a serious need to "rehabilitate" roadways to maintain system preservation. Rehabilitation entails primarily overlay and/or chip seal work that can also be considered a safety improvement. A significant number of road projects listed indicate either "rehabilitation" or "reconstruction" to maintain system preservation.

CAPACITY ENHANCEMENT

A capacity enhancement indicates a project that serves to increase traffic flows and help alleviate congestion and improve level of service (LOS). This result may be achieved by adding a traffic lane (widening), a passing lane, two-way turn lane, replacing a bridge, or a turnout for slow-moving vehicles. Because Calaveras County experiences significant volumes of truck and recreational traffic on many of its roadways vehicles cannot always travel at desired speeds. Capacity enhancement projects are designed to increase travel speeds and provide opportunities to pass slower vehicles safely. Additional capacity can also apply to airport projects for new or extended runways. The desired outcome is to maintain acceptable LOS on State and regionally significant roads, and adequate capacity at the County's airport to meet existing and future demand.

SAFETY PROJECT

Safety improvements are intended to reduce the chance of conflicts between modes, prevent injury to motorists using the transportation system, and ensure that motorists can efficiently travel to their destinations. Safety improvements may include the following:

- Roadway and intersection realignments to improve sight-distance
- Pavement or runway resurfacing to provide for a smooth travel surface
- Signage to clarify traffic and aviation operations
- Congestion relief
- Obstacle removal so that traffic flows are not hindered
- Improvements to pedestrian and bicycle facilities
- Bridge repairs and reinforcement
- Maintenance and tree trimming to improve sight distances for aircraft

The desired outcome is to reduce collisions and incidents on state, county and city facilities, and the societal costs in terms of injury, death, or property damage.

MULTIMODAL ENHANCEMENT

This type of improvement focuses on non-auto modes of travel such as bicycling, walking, and transit. Projects designated as multimodal are designed to enhance travel by one or more of these modes, provide for better connectivity between modes, and improve non-auto access to major destinations and activity centers. Typical projects include separated bike lanes, shared bike routes, sidewalks, transit amenities, street furniture, and signage.

PROJECT PROGRAMMING AND SELECTION CRITERIA

In addition to general system considerations for purpose and need as described above, RTP projects recommended for inclusion in the RTP in Calaveras County consider the following criteria:

- Cost effectiveness
- Operational efficiency/safety
- Congestion relief
- CCOG, County, City of Angels and/or Caltrans District 10 priority
- Pavement conditions
- Emergency, commercial, agricultural and recreational importance of the road
- Average daily traffic volumes and LOS
- Funding constraints
- Percent of heavy trucks and goods movement circulation
- Principal arterial and high emphasis route designations

Projects selected for STIP funding as part of the RTIP emphasize the following additional criteria:

- Consistency with the adopted Regional Transportation Plan
- Ability to leverage new funds
- Regional congestion relief benefits
- Full funding for the project is considered likely during the short-range

COMPLETED PROJECTS

The list of projects that have been completed since the 2007 RTP, or are currently in progress as a result of committed funds, are listed in Appendix 4N.

REGIONAL AND LOCAL ACTION PROGRAMS

The regional and local action programs for the 2012 RTP are a compilation of projects and/or programs already proposed or planned for Calaveras County. It also contains new projects deemed necessary to provide adequate operation of the various transportation systems consistent with the County's and City's goals and policies. To provide acceptable operations along the regional road system, Calaveras County

proposes a series of improvements to be sponsored by the State, the County, City of Angels, Tribal Governments, or local communities. The highest priority improvements are linked to the system deficiencies identified in Chapter 2, previous deficiencies identified in relevant planning documents, and the Goals and Objectives from Chapter 3. The type of improvement (purpose and need), implementation cost, proposed construction Tier, and potential sources of funding are identified in the project tables in Appendices 4A – 4L.

All projects listed in the Action Element fall into one of three Tier designations (Tier 1, Tier 2, or Tier 3). Projects within each Tier are generally listed in random order unless otherwise stated to allow for added flexibility. Consequently, the CCOG, County, City of Angels, and/or Caltrans may change the priority ranking or project scope during the RTP approval process.

It should be noted that the lack of an approved federal transportation bill and authorization has created some uncertainty as to the availability of future funding. Therefore, the fiscal constraint analysis for the 2012 RTP resulted in several long-range projects being moved to the "unfunded" list of projects in Appendix M. As more funding becomes available, some of these projects can be moved to the constrained list at the discretion of the CCOG.

Tier 1 – These RTP improvements represent short-range projects that are fully fundable from anticipated revenue sources and are normally programmed during the first 10 years (2011 – 2021) of the RTP. The first five years of projects (RTIP) are consistent with the most recent STIP fund estimate.

Tier 2 – These RTP improvements represent long-range projects that are likely fundable from anticipated revenue sources and are planned for programming in the 11-25 (2022 – 2035) year timeframe. If the funds cannot be identified, these projects are moved to the "unfunded" list until future funds are identified.

Tier 3 – These RTP improvements represent projects that are longer-term and would not have full funding during the life of the RTP (by 2035) given current revenue projections. However, many of these projects do represent desired long-term projects for the State, County, City and Tribal interests, and are included on the "unfunded" list of projects in Appendix 4N. At the discretion of the CCOG, some of these "unconstrained" projects can be included in the RTP constrained financial plan if additional funding becomes available.

The recommended improvements for the transit system, aviation facilities, bikeway and pedestrian facilities, and goods movement complement the highway improvements and serve to implement a balanced multimodal circulation system. These non-auto improvements are intended to improve air quality by reducing VMT and GHG emissions, and accommodating future travel demand in the County. The Action Element also addresses recommended action programs for Transportation Systems Management (TSM), Transportation Demand Management (TDM), and Intelligent Transportation Systems (ITS).

IMPROVEMENT STRATEGIES

The CCOG recognizes that STIP program funding will not provide adequate resources to build projects and also maintain the integrity of the existing system. Therefore, the RTP considered three funding approaches for selecting RTP projects in the Action Element and project prioritization for future RTIPs.

Strategy 1 – Focus primarily on the State Highway System

The RTP is required to address "regionally significant" projects as defined in SAFETEA-LU (23 CFR 450.104). Regionally significant projects are defined as "projects that serve regional transportation needs both inside and outside of the County, involve major planned activity centers and/or developments, or involve transportation terminals." In the current 2012 RTP update, the County- and City-sponsored projects focus on local road rehabilitation and reconstruction. However, several projects do involve realignments, intersection improvements, and shoulder improvements and involve State facilities such as SR 4, SR 12, SR 49 and SR 26. These improvements are intended to facilitate regional circulation. Appendices 4A and 4B list the recommended State highway improvements for the County and City of Angels. The SR 4 Wagon Trail project accounts for approximately $49.9 million of available funds and the regionally significant roads account for approximately $23.4 million.

Caltrans has proposed several capacity projects on State highways within the County that will also improve regional connectivity as travelers use these facilities to access adjacent counties. The TCRs for these facilities may also recommend improvements that are considered regional in nature because SR 4 is the major north-south connection through Calaveras County and the San Joaquin Valley, and SR 49 is a major connection to the western and eastern portions of the County and neighboring jurisdictions.

Strategy 2 – Balance spending on State Highway improvements and County and City road improvements

This strategy maintains local road funding for important benefit basin and Road Impact Mitigation (RIM) projects. These are deemed critical to maintain system preservation and safety. The strategy does allow for shifting some funds to non-auto modes. Under this approach, bicycle, transit, and pedestrian improvements may receive a higher priority than some road capacity projects at the discretion of the CCOG, County and/or City of Angels. It is recommended that capacity improvements include a bike/pedestrian component to facilitate non-auto circulation and connectivity. Projects that derive from the County's Capital Improvement Program (CIP) and Benefit Basin program include improvements to County facilities that would not typically be funded from STIP. In addition, the RIM program provides needed funding for County and City of Angels improvements that rely on developments' contribution to the project. Several of these improvements include bridge and road capacity improvements to facilitate circulation on local roads. A description of these local programs is provided under Strategy 3.

Strategy 3 – Increase local revenue

Calaveras County has taken steps to increase local funding through three local programs: The Road Impact Mitigation Fee Program (RIM); the Valley Springs Benefit Basin program; and the Copperopolis Benefit Basin program.

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 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 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.

Copperopolis Benefit Basin

The Copperopolis Benefit Basin is located in the southwestern part of Calaveras County. The Boundary for the Copperopolis Benefit Basin includes those properties that will reasonably be served by the improvements identified in the study. This boundary remains unchanged from the boundary originally defined when the County established the original Benefit Basin in 2002. The boundary follows parcel lines of the surrounding properties west and east of O'Byrnes Ferry Road (Main Street, Copperopolis) from Highway 4 southerly to the County boundary. Additionally, a few properties north of Highway 4 which directly access identified study intersections along Highway 4 were included in the Basin.

The boundary includes areas that will develop in the future such as Oak Canyon Ranch, Saddle Creek, and Tuscany Hills. Limits of the boundary were established by reviewing the proximity of parcels to the area and improvements and considering such physical constraints as mountain ranges (ridge lines) and the parcels' potential to have an impact on the Basin roads. The Benefit Basin includes parcels located in Calaveras County Transportation Analysis Zones (TAZ) 163- 167, 169, 170, 443-445, and 451.

Valley Springs Benefit Basis

Parcels to be included in the proposed benefit basin are readily defined by those parcels within the immediate traffic shed of SR 12 and 26 from the County line east to Toyon and bounded by Camanche, New Hogan Reservoirs, and the Calaveras River. The proposed benefit basin as defined incorporates a total of 19,300 potential undeveloped parcels, which includes about 15,000 undeveloped residential

parcels and 2,000 acres of undeveloped commercial property. Implementation of the Valley Springs Benefit Basin will be modeled after the recently adopted Road Impact Mitigation Fee with the following exception:

"Consistent with Government Code 66000, the Implementation Plan provides for periodic Review of the benefit basin".

2012 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM (RTIP)

Regional Transportation Planning Agencies, such as the CCOG, must prepare and submit an RTIP to the CTC every two years. The RTIP is used to nominate transportation projects for funding under the State Transportation Improvement Program (STIP). The 2012 RTIP includes STIP programming for five fiscal years from FY 2012-13 through FY 2016-17. The 2012 RTIP complies with the 2012 STIP Guidelines and the 2012 STIP Fund Estimate (FE).

The RTIP must show consistency with other planning documents prepared by the CCOG, Federal, and/or State Agencies as shown in Table 4.1.

TABLE 4.1 2012 RTIP CONSISTENCY WITH OTHER PLANNING DOCUMENTS

2012 STIP Fund Estimate	The 2012 RTIP is consistent with the 2012 STIP Fund Estimate
Regional Transportation Plan (RTP)	The 2012 RTIP is consistent with, and helps to implement the policies, plans, and projects contained in the CCOG adopted 2007 RTP and its Air Quality Conformity Determination
Interregional Transportation Improvement Program (ITIP)	The 2012 RTIP is consistent with the 2007 ITIP prepared by Caltrans
Federal Transportation Improvement Program (FTIP)	Any project that receives federal funds must be programmed in the FTIP. The 2012 RTIP contains projects that, if approved, would be amended into the Rural-Non MPO FTIP administered by Caltrans
Project Study Reports (PSRs)	Projects programmed in the RTIP are consistent with the cost estimates contained in a PSR or its equivalent

Source: 2012 RTIP for Calaveras County

TRI-COUNTY MEMORANDUM OF UNDERSTANDING (MOU)

The 1996 MOU between Amador and Calaveras County pooled funding for two long-standing priority State highway projects: the SR 49 Amador Bypass and the SR 4 Angels Camp Bypass. In 1997, Alpine County joined Amador and Calaveras Counties and the MOU was expanded to include the SR 4 Arnold Passing Lane project and the SR 88 Cooks and Hams Stations Passing lane projects. The 2006 STIP Augmentation funded all four projects. Their current status is:

- The SR 4 Arnold Passing Lane was constructed and became operational in 2004.

- The SR 88 Cooks and Hams Stations Passing Lanes were constructed and became operational in 2006.
- The SR 49 Amador Bypass was constructed and became operational in 2007.
- The SR 4 Angels Camp Bypass was constructed and became operational in July 2009.

CURRENT STIP PROGRAMMING

The CCOG has programmed a total **of $5.853 million** in the 2012 RTIP. Table 4.2 summarizes the distribution of RTIP funds:

TABLE 4.2 2012 RTIP FOR CALAVERAS COUNTY

Project Proponent	PPNO	Project Name/Description	Year of Construction	Cost
Highway Projects				
Calaveras County	3067	SR 4 Wagon Trail Realignment	2014/15	$4,357
Calaveras COG	C1950	Planning, Programming, Monitoring (PPM)	2012 – 2017	$294
			Subtotal RIP Highway Projects	*$4,651*
Transportation Enhancement (TE) Projects				
City of Angels		Angels Camp sidewalks	2012/13	$288
Calaveras County		Arnold RIM Trail Bikeway Connection	2013 – 2015	$317
Calaveras County		Cosgrove Creek Bikeway	2015 – 2017	$597
			Subtotal TE Projects	*$1,202*
			Total RTIP (RIP + TE)	**$5,853**

Source: CCOG 2012 RTIP

CURRENT SHOPP – PROGRAMMED

The programmed projects for the State Highway Operations and Protection Program (SHOPP) for Calaveras County through FY 2013/14 are shown in Table 4.3. The short-range programmed SHOPP includes four projects totaling approximately **$29.1 million**. The future long-range SHOPP (2020 – 2035) will be included when estimates are available. Total costs for the long-range SHOPP is to be determined (TBD).

**TABLE 4.3 CALAVERAS COUNTY SHOPP
FY 2010/11 through FY 2013/2014**

State Route	Mile Post	Description	Program Code	Construction Cost ($1,000s)	10-Year SHOPP
SR 26	8.9	Two-Way Left Turn Lane	010	$1,000	Y
SR 26	8.4	Install Traffic Signals	010	$1,300	Y
SR 26	21.4	Erosion Control, Retaining Wall	335	$3,700	Y
SR 4	29.6	X-Walk, Ped Signals & ADA Improvements	378	$1,800	Y
SR 4	42.8	Curve Improvement	310	$4,000	Y

Source: Caltrans District 10

RTP ACTION ELEMENT PROJECT LISTS

The projects recommended for short-range and long-range funding in the 2012 Calaveras RTP are summarized below by mode. The project costs have been inflated consistent with CPI and construction costs estimates and projections from Caltrans District 10. Project descriptions including purpose and need are provided in Appendices 4A – 4L. The projects listed in the Action Element represent modal improvements through 2035 to meet the needs analysis from Chapter 2, comply with the goals and policies from Chapter 3, and conform to the required constraint analysis from Chapter 5.

Calaveras County Road and Bridge Projects (Appendix 4A)

Appendix 4A lists the short-range (Tier 1) and long-range (Tier 2) RTP road and bridge projects for the County of Calaveras. The projects include three priority projects for the RIM program and a bridge replacement over Warren Creek. Appendix 4A also includes estimates for ongoing operations and maintenance (O&M).

- *The subtotal for Tier 1 and Tier 2 capital road and bridge projects for Calaveras County is **$60.5 million**.*
- *O&M is estimated at **$67.2 million***
- **Total County Road and Bridge with O&M is $127.7 million**

City of Angels Road and Bridge Projects (Appendix 4B)

Appendix 4B lists the short-range (Tier 1) and long-range (Tier 2) road and bridge projects for the City of Angels. The project list includes some widening and realignment, road rehabilitation and reconstruction, intersection improvements and bridge reconstruction at the Vallecito Road/ SR 49 South intersection. Appendix 4B also includes estimates for ongoing operations and maintenance.

- *The total for Tier 1 and Tier 2 road and bridge projects for the City of Angels is **$24.4 million**.*
- *O&M is estimated at **$2.1 million**.*
- **Total City Road and Bridge with O&M is $26.4 million.**

Transit Projects (Appendix 4C)

Appendix 4C lists the transit improvements for Calaveras Transit. These improvements are derived from recommendations in the Calaveras County Coordinated Public Transit – Human Services Transportation Plan, the Short-Range Transit Plan, and the "unmet transit needs" process. The Tier 1 improvements include an extensive transit bench and shelters program and vehicle replacement. Tier 2 projects include additional bus purchases annually through the life of the RTP. Transit O&M is included.

- *The total capital costs for transit projects are estimated at **$5.1 million.***
- *Total operating cost for transit are **$28.7 million** through 2035.*
- **Total Transit Costs are $33.8 million.**

Aviation Projects (Appendix 4D)

Appendix 4D lists the aviation improvements for Calaveras County's airport (Maury Rasmussen Field). The projects are coordinated with the Caltrans Division of Aeronautics. Projects include runway and taxiway improvements, parking improvements and safety improvements.

- *Total estimated cost for all aviation related capital improvements is **$511,000.***
- *Total O&M for Aviation is **$7.7 million.***
- **Total Aviation Costs are $8.2 million.**

Non-Motorized Bicycle and Pedestrian Facilities (Appendix 4E)

Appendix 4E lists Tier 1 and Tier 2 non-motorized projects that involve Class I and Class II facilities. Funding sources for the projects include the BTA, SR2S, TE and local (Benefit Basin and development fees). Class I bike paths, Class II bicycle lanes, and pedestrian sidewalk completion are proposed for the County and City of Angels.

- *The total estimated cost for non-motorized improvements in the County **is $10.4 million**.*
- *The total estimated cost for non-motorized improvements in the City is **$1.3 million***
- **Total Non-Motorized Class I and Class II Facilities is $11.7 million.**

Non-Motorized Class III Bike Routes Requiring Minor Road Improvements (Appendix 4F)

Appendix 4F shows the proposed bike improvements by community that will receive Class III Bike Route signage and require some road improvement (widening, repaving, realignment, etc.). These facilities are designated to "share the road" with bikes and vehicles. All the proposed improvements are designated as multimodal.

- **Total estimated cost for non-motorized Class III improvements is $25.2 million.**

Non-Motorized Class III Bike Routes-Signage Only (Appendix 4G)

Appendix 4G shows road facilities, by community, proposed for Class III Bike Routes involving signage only. No other road improvements are anticipated prior to installing the appropriate signs.

- **Total estimated cost for non-motorized Class III signage only is $657,000.**

Sidewalk Improvements (Appendix 4H)

Appendix 4H lists the pedestrian sidewalk improvements by community to increase connectivity and circulation. The improvements include both on-street and off-street improvements. The costs for these improvements as part of a multimodal project are included in Appendix 4E and not repeated here. The costs shown in Appendix 4H reflect sidewalk and pedestrian improvements only.

- **The estimated cost for sidewalk/pedestrian improvements is $1.7 million.**

Transportation Enhancement Improvements (Appendix 4I)

Appendix 4I lists five projects to be funded with TE funds. The improvements include Class I bike improvements, pedestrian intersection improvements and sidewalks.

- **Total estimated cost for TE improvements is $1.8 million.**

Calaveras County Benefit Basin Projects (20-year vision) (Appendix 4J)

The list of projects to be funded from the Copperopolis Benefit Basin Program and the Valley Springs Benefit Basin Program are shown in Appendix 4J. These projects involve roadway upgrades, intersection improvements, curve realignment, and road widening. The majority of improvements are safety related or capacity enhancing projects designed to facilitate existing traffic flows.

- *Total estimated cost for the projects in the Copperopolis Benefit Basin is **$7.7 million**.*
- *Total estimated cost for projects in the Valley Springs Benefit Basin is **$2.2 million***
- **Total cost for the Benefit Basin 20-Year vision is $9.9 million.**

Road Impact Mitigation (RIM) Fee Program Projects (Appendix 4K)

Appendix 4K lists the RIM projects proposed for the 2012 RTP. As noted, the RIM fee is used to fund planning, design, and construction of transportation infrastructure that is necessary to mitigate the impacts of future growth. Projects include State highway and local road facilities. The priority projects are those that have grant funding in place for the portion of the project cost which is not allocated to "new development". It should be noted that the projects on Murphys Grade Road represent a segment of the

overall RIM effort to improve these facilities to county standards. RIM projects that are in progress or have been completed are included in Appendix N.

- **The total for all RIM program costs is $6.1 million through 2035.**

Calaveras County Capital Improvement Program (CIP) (Appendix 4L)

Appendix 4L lists the projects in the Calaveras County CIP that have not been included under other modal programs. Projects include bridge reconstruction and repairs, intersection realignment, and access improvements to Jenny Lind Elementary school.

- **Total CIP costs are $37.9 million through 2035.**

Transportation Systems Management

Transportation systems management (TSM) is a term used to describe low-cost actions that maximize the efficiency of existing transportation facilities and systems. Urbanized areas can implement strategies using various combinations of techniques. However, in relatively rural areas like Calaveras County, many measures that would apply in metropolitan areas are not practical.

With limited funding, Calaveras County must look for the least capital-intensive solutions. On a project basis, TSM measures are good engineering and management practices. Many are already in use to increase the efficiency of traffic flow and movement through intersections. Long-range TSM considerations include:

- Signing and striping modifications
- Parking restrictions
- Paving and restriping parking areas to facilitate off-street parking
- Installing or modifying signals to provide alternate circulation routes for residents
- Re-examining speed zones on certain streets

These types of actions will remain important elements of the RTP and General Plan planning process.

Intelligent Transportation Systems (ITS)

Intelligent Transportation Systems (ITS), as defined by law, refers to the employment of "electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system." The implementation of ITS improvements is a priority for the U.S. Department of Transportation and Caltrans. A key component of that nationwide implementation is the National ITS Architecture, a framework devised to encourage functional harmony, interoperability, and integration among local, regional, State, and Federal ITS applications.

Key ITS applications, either existing or recommended for Calaveras County, include:

- Transit and traveler information (for example, telephonic and Web-based travel information access)
- Highway advisory radio
- Commercial vehicle operations systems (for example, weigh-in-motion systems at roadside weighing and inspection stations)
- Automated vehicle location (AVL) systems for transit vehicles

Unconstrained (unfunded) County and City Projects (Appendix 4M)

The RTP recognizes that transportation needs exist beyond available revenues. These "unfunded" projects reflect improvements and associated operations, maintenance, and rehabilitation that require funding outside of anticipated revenues. These projects are included in Appendix 4M. Total estimated cost of unconstrained projects is approximately **$640 million**.

CHAPTER 5: FINANCIAL PLAN

Fiscal constraint is one of the foundational concepts of the Calaveras County 2012 RTP. Fiscal constraint is the demonstration of sufficient funding to operate and maintain the transportation system and to implement planned and programmed transportation system improvements. Given the nature of the current economy at both the national and State level, fiscal constraint is exceptionally important to maximizing transportation funding in the RTP process. As part of the 2012 RTP effort, the CCOG, in cooperation with the County and City of Angels has taken a stricter approach on this issue than in the past. The CCOG recognizes that while needs will always exceed available funding, it is smart planning to maximize the benefit of each available dollar and to prioritize projects based on the funding availability, not strictly on desire or a wish list of projects.

APPROACH

The typical RTP process is to determine transportation improvement needs based on an analysis of travel demand and Level of Service (LOS), identification of needed projects that meet the demand and operational constraints, and then a determination of available funding that will pay for the improvements. In addition, projects carried over from past planning efforts are included because of their past importance. This approach typically results in a fiscal deficit, as needs and desires generally outweigh projected revenues. This has been the case with past RTPs in Calaveras and other rural counties.

The CCOG, however, has taken these same steps and rearranged them. The approach for the 2012 RTP is to determine the available revenues by funding source, prioritize and arrange recommended improvements based on the projected funding, and make decisions based on projected surpluses or shortages. Past historical trends for the CCOG, County and City of Angels, as well as the latest Calaveras County Economic Forecast from Caltrans, were used to establish baseline and future revenue projections and totals. The revenues from each source were inflated to reflect the inflation rate from the Consumer Price Index (CPI). For the 2012 RTP the inflation rate assumed between 2012 and 2035 is 2.2 percent per year. For some sources, the inflation factor was reduced based on local knowledge and past funding trends. (*Source: California Department of Transportation, Economic Analysis Branch, Division of Transportation Planning, 2011 Economic Forecast for Calaveras County*).

The 2012 RTP emphasizes operation and system preservation projects (maintain the existing system) to be important along with widening projects that add to or expand the circulation and safety needs of the system and existing traffic.

REVENUE ASSUMPTIONS

The RTP embodies investment priorities for local, state, and federal funds. The RTP describes both the short-term and the long-term investment strategy in the region's transportation system, indicating how all funding sources are to be utilized to meet the goals and objectives from Chapter 3. The financial plan further provides a summary of the projected transportation-related revenues for the Calaveras region over the life of the plan and an accounting of the project costs necessary to implement the goals of the RTP.

As a necessary condition of fiscal constraint, the financial plan contains assumptions about the availability of future funding from identified and new sources. The identified federal and state funding sources are assumed available over the life of the RTP, even if at reduced levels. The CCOG has used the "Reasonably Anticipated" barometer to identify and estimate revenues. No new funding source, or existing funding source has been included that is not "reasonably anticipated. " Key assumptions have been made as part of the revenue projections process, as summarized below:

Primary Funding Sources:
Federal Programs
State Programs
Local Programs

- The State and Federal gas taxes are assumed to continue near today's levels through 2035.

- A specified level of state and federal discretionary funding will be available for RTP improvements. These programs include the STIP, Surface Transportation Program (STP), and Local Transportation Funds (LTF). The appropriate match requirements for each program will be available from local funds. These revenues will remain fairly flat in the short-term (through 2021) and then increase slightly in the long-term (through 2035).

- The availability of local funds is limited. The County and City of Angels will rely on state and federal revenues to supplement local funding from their Benefit Basin program, Capital Improvement Program (CIP) and the Road Impact Mitigation (RIM) program to fund the majority of local transportation improvements.

SUMMARY OF REVENUES AND COSTS

The following information summarizes revenue projections from all available sources and provides a recap of RTP project costs. A discussion of individual revenue sources and programs, and modal cost categories is also provided.

RTP REVENUES

Table 5.1 summarizes the short-range and long-range revenue estimates from local, state, and federal sources for the 2012 RTP through the horizon year (2035). The CCOG anticipates approximately **$294.4 million** through 2035 for all sources. Note: RIM revenues in Table 5.1 are based on estimated future development of 2,700 DU @ $4,214 per DU.

TABLE 5.1 MAJOR REVENUE SOURCES

Revenue Sources	Estimated Revenues		
	Short-Range	Long-Range	Total
Local			
Airport Income (without federal grants)	$4,877,101	$7,190,459	$12,067,560
Benefit Basin	$2,000,000	$2,800,000	$4,800,000
RIM Program County	$2,443,200	$3,664,800	$6,108,000
RIM Program City of Angels	$5,688,900	$5,688,900	$11,377,800
Transit Income (Fares, Vendor Services)	$936,627	$1,650,744	$2,587,371
Local Transportation Fund (LTF) – Transit	$5,179,947	$7,598,355	$12,778,302
Local Transportation Fund (LTF) – Transit Reserves	$82,500	$119,927	$202,427
Local Transportation Fund (LTF) - TDA Administration	$1,320,540	$1,919,609	$3,240,149
Local Transportation Fund (LTF) – Bike & Pedestrian	$145,580	$211,623	$357,203
Local Transportation Fund (LTF) – City/County Streets & Roads	$1,436,533	$2,019,722	$3,456,255
Subtotal	*$24,110,928*	*$32,864,139*	*$56,975,067*
State			
State Highway Operations and Protection Program (SHOPP)	$13,000,000	$15,000,000	$28,000,000
State Transportation Improvement Program (STIP)	$15,647,794	$26,975,098	$42,622,892
State Transportation Enhancement (TE)	$2,951,941	$5,088,826	$8,040,767
Proposition 1B/PTMISEA	$1,199,165	$0	$1,199,165
Proposition 1B (CalEMA)	$220,182	$0	$220,182
State Transit Assistance (STA)	$2,286,071	$3,940,939	$6,227,010
State and/or Federal Aviation Grants (AIP; CAAP)	$850,000	$1,190,000	$2,040,000
Subtotal	*$36,155,153*	*$52,194,863*	*$88,350,016*
Federal			
Federal Transit 5311 (Formula)	$1,705,280	$2,594,058	$4,299,338
Federal Transit 5311(f), 5310, 5317	$2,350,312	$3,906,043	$6,256,355
Surface Transportation Program (STP)	$4,747,383	$8,183,973	$12,931,356
Highway Safety Improvement Program (HSIP)	$5,000,000	$7,000,000	$12,000,000
Highway Bridge Program (HBP) (County)	$5,000,000	$7,000,000	$12,000,000
Highway Bridge Program (HBP) (City of Angels)	$5,120,000	$7,680,000	$12,800,000
Congestion Mitigation Air Quality (CMAQ)	$4,740,000	$6,636,000	$11,376,000
Scenic Byways Program	$578,773	$900,316	$1,479,089
High Priority Projects (HPP)	$2,431,706	$4,191,997	$6,623,703
Highway Users Tax (HUT) (O&M County)	$28,000,000	$39,200,000	$67,200,000
Highway Users Tax (HUT) (O&M City of Angels)	$900,000	$1,170,000	$2,070,000
Subtotal	*$60,573,454*	*$88,462,387*	*$149,035,841*
GRAND TOTAL ALL REVENUE SOURCES	**$120,839,535**	**$173,521,389**	**$294,360,924**

TOTAL PROJECT COSTS

Table 5.2 provides a summary of total project costs for the RTP. In line with Year of Expenditure (YOE) requirements, the CCOG has escalated all project costs to the appropriate Tier of completion at 2.5 percent per year consistent with CPI forecasts from the Bureau of Economic Analysis. The YOE ensures that "total" project costs account for inflation. Short-range project costs for the 2012 RTP with O&M total approximately $190.7 million, while long-range costs are estimated at $103.7 million. The total for all RTP projects is approximately **$294.4 million** through 2035.

TABLE 5.2 CAPITAL AND OPERATING COST ESTIMATES FOR ALL PROJECTS

	Short-Range Costs (2010-2021)	Long-Range Costs (2022-2035)	Total
County Road & Bridge Capital	$53,136,000	$7,384,000	$60,520,000
County Road & Bridge O&M	$28,000,000	$39,200,000	$67,200,000
City Roads & Bridge Capital	$10,070,000	$14,300,000	$24,370,000
City Road & Bridge O&M	$900,000	$1,170,000	$2,070,000
Transit (Capital)	$2,264,000	$2,823,000	$5,087,000
Transit (O&M)	$11,106,000	$17,602,000	$28,708,000
Aviation	$511,000	$0	$511,000
Aviation (O&M)	$3,070,000	$4,605,000	$7,675,000
County Non-Auto Class I & 2	$6,638,000	$3,809,000	$10,447,000
City Non-Auto Class I & 2	$759,000	$511,000	$1,270,000
Non-Auto Class 3 w Road Imp.	$16,924,000	$8,271,000	$25,205,000
Non-Auto Class 3 Signage Only	$648,000	$9,000	$657,000
Pedestrian	$1,722,000	$0	$1,722,000
TE	$1,821,000	$0	$1,821,000
Benefit Basin (Copperopolis)	$7,726,000	$0	$7,726,000
TDA Administration	$1,408,760	$1,831,389	$3,240,149
Benefit Basin (Valley Springs)	$2,176,000	$0	$2,176,000
RIM	$3,944,000	$2,163,000	$6,107,000
CIP	$37,900,000	$0	$37,900,000
Total	**$190,723,760**	**$103,678,389**	**$294,412,149**

FEDERAL REVENUES

The CCOG anticipates approximately **$149.0 million** from all Federal sources through 2035.

Federal Transportation Authorization Bill, SAFETEA-LU (Safe, Accountable, Flexible, Efficient, Transportation Equity Act – A Legacy for Users)

The current Federal Transportation Authorization Bill, SAFETEA-LU was signed into law on August 10, 2005. The Bill authorized $286.5 billion in transportation-related spending in Federal fiscal years (FFY) 2004-2009. The total national funding in SAFETEA-LU provides a spending increase (inflation-adjusted) of approximately 5 percent for highways and 16 percent for transit over the previous bill, TEA-21.

Federal funding is divided into two funding types: highway (FHWA) and transit (FTA). The Highway Trust Fund (HTF) is the funding source for most of the programs in SAFETEA-LU. The HTF is comprised of the Highway Account – which funds highway and inter-modal programs – and the Mass Transit Account. Federal motor fuel taxes are the major source of income into the HTF. In Calaveras County, fuel tax monies are used primarily for State highway projects and County roads. They are also used for emergency repairs and bridge replacement. Federal funds are available for most rural collectors in the County road system and for rural portions of the State highway system. The Federal Highway Administration (FHA) administers the Highway Trust Fund. The California Department of Transportation (Caltrans) processes these funds through the State Transportation Improvement Program (STIP) as outlined by SB 45. The remaining funds are split 25% for the State Interregional Transportation Improvement Program (ITIP) and 75% for the Regional Transportation Improvement Program (RTIP). The federal highway funds matched with State highway funds are used to pay for the Caltrans State Highway Operation and Protection Program (SHOPP).

The RTPA is responsible to program projects for the RTIP based upon the amount of funding allocated to the Calaveras County Region that is consistent with the RTP. The RTPA will program funding for the State highway and local road system, transit and other transportation needs. All state highway and road projects are required to have a Caltrans' Project Study Report (PSR) that identifies scope, schedule and cost prior to the project being programmed in the STIP. The PSR can be prepared using Planning, Programming, and Monitoring (PPM) STIP funds.

Subject to an agreement with the Office of Local Assistance, local agencies can also have their Planning, Programming, and Monitoring (PPM) funds included in the OWP work elements. Per AB 608, effective January 1, 2002, Section 14527(g) of the Government Code was amended to permit rural RTPAs to use up to 5 percent of their Regional Improvement Program (RIP) funds toward PPM funding.

Highway Safety Improvement Program (HSIP)

This new program, introduced in SAFETEA-LU, replaces the previous Hazard Elimination Safety Program (HES). This program allows states to target funds to their most critical safety needs. A total of $5.1 billion was provided nationally for FFY 2006 – 2009. There is a current call for projects for the HSIP program with applications due in July 2012. This time frame does not allow for new projects beyond what has been proposed ($3.5 million) to be included in this update. Additional projects proposed for funding by HSIP are listed in Appendix N as completed or in-progress. The region anticipates approximately **$12.0 million** in HSIP funds through 2035.

Highway Bridge Program (HBP)

HBP provides for construction and maintenance of bridges that are not on the State highway system, such as bridges on rural minor collectors and local roads. The range of HBP funds available to the region is typically between $4 and $7 million annually, when funding is available. The region has proposed $1.2 million in new projects with an additional $38 million listed as complete or in-progress in Appendix 4N. The region anticipates approximately **$24.8 million** in HBP funds over the life of the RTP for the County and City of Angels.

Federal Transit Administration Section 5311 (Non-urbanized Formula)

Under this section, funds are provided to non-urbanized transit systems on a formula basis for capital and operating expenses. Twenty (20) percent of Section 5311 funds are distributed through a new tier-based formula based on land area. The remaining 80 percent of funds is allocated by the existing formula based on population. The rural transit assistance program (RTAP) is funded with a 2 percent set-aside of the Section 5311 grant funds. During the life of the RTP, it is anticipated that the region will receive approximately **$4.3 million** in formula funds through 2035.

Federal Transit Administration Section 5311 (f), 5310 and 5317 (Non-Formula Transit)

Under this section, funds are provided to non-urbanized transit systems such as Calaveras Transit. During the life of the RTP, based on historical trends the region will likely receive approximately **$6.3 million** in FTA non-formula funds through 2035. To become eligible to receive these funds, agencies must apply through a competitive grant process.

Match Exchange Surface Transportation Program (STP)

The STP guarantees counties 110 percent of their allocation under the old Federal Aid Urban/Federal Aid Secondary (FAU/FAS) program. Jurisdictions may spend these fund on streets and roads or for bikeway and pedestrian, transit, safety, ridesharing, traffic management, parking, environmental enhancements, and transportation control measures (TCMs). Calaveras County has historically exchanged its STP funds for use on local facilities. The region expects to receive approximately **$12.9 million** in STP (exchange funds) through 2035.

Congestion Mitigation and Air Quality Program (CMAQ)

The purpose of CMAQ is to fund transportation projects or programs that will contribute to attainment or maintenance of the National Ambient Air Quality Standards (NAAQA) for ozone and carbon monoxide. Project types typically considered for CMAQ include traffic flow improvements, transit projects, bike and pedestrian improvements, outreach and rideshare activities, and planning and project development. The CCOG has estimated approximately **$11.4 million** in CMAQ funds through 2035.

Highway User Tax (HUT)

Highway User Tax (HUT) funds are used primarily for the maintenance of county and city roads. The region anticipates approximately **$ 69.3 million** from the HUT through 2035 for the County and City of Angels.

High Priority Projects (HPP)

This program provides designated funding for specific projects identified in SAFETEA-LU as having national or regional significance or part of a national corridor infrastructure improvement program. The Region anticipates approximately **$6.6 million** through 2035.

National Scenic Byways Program (SBP)

The SBP recognizes roads having outstanding scenic, historic, cultural, national, recreational, and archaeological qualities and provides for designation as National Scenic Byways. An example is the Ebbetts Pass National Scenic Byway. Candidate expenditures can include:

- Planning, design, or development of a State or Indian tribe scenic byway program.
- Development and implementation of byway corridor management plan.
- Safety improvements for increased traffic; Improvements that enhance access and protection of resources.
- Development and provision of bicycle and pedestrian facilities, interpretive centers, and other traveler amenities.

The Calaveras region anticipates receiving approximately **$1.5 million** during the life of the RTP.

STATE FUNDING PROGRAMS

The CCOG anticipates approximately **$88.3 million** from all State sources through 2035.

State Highway Operations and Protection Program (SHOPP)

Biennially, Caltrans is required to prepare a SHOPP for the cost of major capital improvements necessary to preserve and protect the State highway system. Projects included in the SHOPP are limited to capital improvements that do not increase capacity, relative to maintenance, safety, and bridges. Projects can also include bridge replacement and seismic retrofitting. RTPAs are encouraged to coordinate with Caltrans on the SHOPP before submission to the CTC. The current SHOPP for Calaveras County provides for $13.0 million in the short-range and an additional estimated $15.0 million in the long-range funding. In total, Calaveras County anticipates receiving approximately **$28.0 million** thorough 2035.

State Transportation Improvement Program (STIP)

The STIP is a four-year planning document adopted every two years that lists commitments of transportation funds for improving rail, mass transportation, local road, and the State Highway System operations. Seventy-five percent of STIP funding goes to the Regional Improvement Program (RIP) and 25 percent goes to the State discretionary account the Interregional Improvement Program (IIP).

Under the RIP, the Calaveras County region has the discretion to select and program transportation improvement projects on State highways, local roads, and transit and bike facilities. Projects for RIP funding are identified in the Regional Transportation Improvement Program (RTIP). The region anticipates approximately **$42.6 million** through 2035.

Transportation Enhancement (TE)

TE projects must have a direct relationship – by function, proximity, or impact – to the surface transportation system. Activities must be over and above normal projects, including mitigation. TE projects are primarily for pedestrian and bicycle projects, scenic easements or historic sites, landscaping or beautification, rehabilitation of historic structures, preservation of abandoned railway corridors, and certain environmental mitigations. Calaveras County is eligible to receive TE funding in FY 2010/11 and future years as part of the STIP. The County will determine how they want to use those funds when the funds become available. If the TE funds are exchanged and used for road purposes, then funds are used under TDA Article 19 purposes (streets and roads). The CCOG has estimated approximately **$8.0 million** in TE funding through 2035.

State Transit Assistance (STA)

State Transit Assistance (STA) funds are derived from the Public Transportation Account (PTA). Half of the funds (50 percent) are allocated to Caltrans, and the other half to RTPAs. Of the RTPA allocation, half is allocated to mass-transit projects for such needs as vehicles, equipment, and terminals, and the other half is allocated to transit operators, based on fare revenues. The region typically receives approximately $250,000 in STA funds annually. Over the life of the RTP the County anticipates approximately **$6.2 million** in STA funding.

Aviation Funding

Aviation funding for Calaveras County is provided from four sources. The Federal Aid Improvement Program (AIP), which is referred to as FAA, and the California Aid to Airports Program (CAAP) contribute approximately $160,000 per month. The FAA provides 90 percent Federal funding, with 10 percent local funding, for general aviation airports. FAA funds are derived from user charges, such as taxes on aviation fuels, taxes on civil aircraft, and a surcharge on air passenger fares. These funds can be used for most capital expenditures. The CAAP makes grant funds available for airport development and operation.

Although funding for aviation comes from both State and Federal sources, the State administers fund distribution; therefore, revenue estimates are shown under the State category. The CCOG anticipates approximately $2.0 million from both sources through 2035. The airport receives additional income from airport rents and airport fuel sales. These two categories are anticipated to provide approximately $12.0 million. In total, the airport revenue is estimated at **$14.0 million** through 2035.

Proposition 1B/PTMISEA and CalEMA

The California bond program for roads and transit is estimated to provide approximately **$1.4 million** to Calaveras County through 2021 based on past authorization and amounts. No long term funds from this program have been identified.

LOCAL REVENUES

The CCOG anticipates approximately **$56.9 million** from all local sources for roads, transit, non-auto modes, and administration through 2035.

Transit Income

Calaveras Transit receives revenues from various subsidies, vendor services, as well as transit fares. The CCOG estimates future revenues from all transit income is approximately **$2.6 million** through 2035. These funds will be used for both operating and capital expenditures.

Local Transportation Fund (LTF)

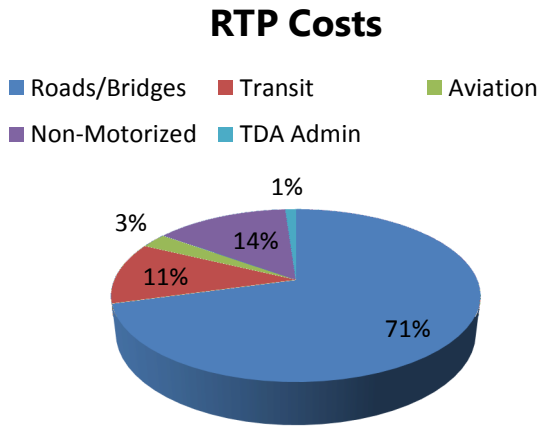
Existing law requires that ¼ percent of statewide sales and use tax money be transferred to the local transportation fund of the County for allocation, as directed by the CCOG, to various transit projects and programs. The LTF also provides limited funds (2 percent set aside) for the construction and maintenance of pedestrian or bicycle facilities. The CCOG must designate the 2 percent to any eligible entity for such purposes. Each local claimant may use any portion of its respective apportionment for non-motorized facilities.

The TDA also allows local agencies to use LTF funds on local streets and roads, if all unmet transit needs that are found "reasonable to meet" are funded. Any remaining funds can be used for local road projects. Under current law, the CCOG anticipates approximately **$20.0 million** for LTF allocated as follows:

- Transit - $12.8 million
- Transit Reserves - $202,000
- TDA Administration - $3.2 million
- Bike and Pedestrian - $357,000
- City/County Streets and Roads - $3.5 million.

DISTRIBUTION OF PROJECT COSTS AND REVENUES

The pie charts below show percent distribution of project cost and revenues by modal category. Calaveras County has allocated the cost share for non-auto (bike and ped) projects to 14 percent and transit projects to 11 percent. Both categories will help the County in its efforts to reduce VMT and GHG. Aviation comprised 3 percent of costs and Roads/Bridges account for 71 percent.



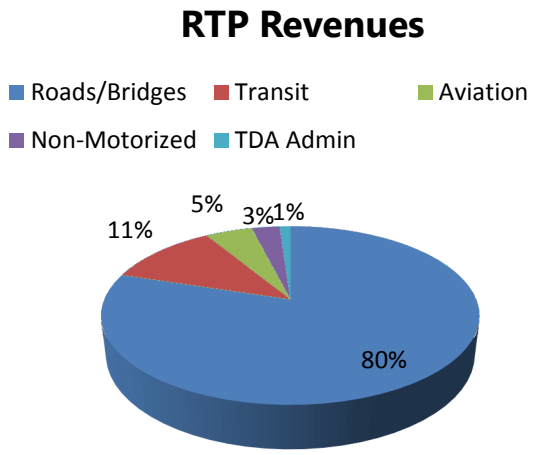


TABLE 5.3
TOTAL COST VS. TOTAL REVENUES

Modes	Total Costs	Total Revenues	Difference
Roads/Bridges	$208,069,000	$234,845,006	$26,776,006
Transit	$33,795,000	$33,770,150	($24,850)
Aviation	$8,186,000	$14,107,000	$5,921,000
Non-Motorized	$41,122,000	$8,397,970	($32,724,000)
TDA Administration	$3,240,149	$3,240,149	$0
Total Project	**$294,412,149**	**$294,360,275**	**($51,844))**

FISCAL CONSTRAINT – PROJECT COSTS VS. TOTAL REVENUES

The 2012 Calaveras County RTP is fiscally constrained to the total revenue and cost assumptions in this chapter considering the uncertainty in future revenues from federal and state sources. Table 5.3 provides a comparison of total costs and revenues through 2035, including an estimate of operations and maintenance costs. Overall, the RTP shows a total project cost of **$294.4 million** in capital and operating costs for all modes, and total revenues of **$294.4** million to pay for those capital costs. The amount of funding available for operations and maintenance of the system (O&M) is estimated from various sources, including HUT, Match Exchange, Transit and Aviation. The relatively small deficit of costs compared to revenues ($51,844) may change as projects are prioritized for actual construction, more projects are added or deleted, and actual revenue and cost sources are refined through federal and state budget allocations and authorization.

FUNDING PLAN

The RTP for Calaveras County identifies key short-range (0-10 years) and long-term (11-25 years) road improvements and maintenance for the County's transportation system. These projects are categorized as Tier 1, Tier 2, or Tier 3. Funding sources for these projects come from various federal, state, and local sources, including STP, STIP, SHOPP (Major and Minor) Program, HBP, HSIP, HPP, grants, and limited local funding from gas taxes, Benefit Basin, RIM and the CIP, and the highway users tax. The RTP also identifies a series of multimodal projects and programs, such as transit improvements, aviation improvements, bicycle improvements, and pedestrian improvements. Due to the lack of a federal transportation bill similar to SAFETEA-LU, and the funding targets established by the CCOG, the following questions remain critical to the County's transportation system:

How should limited transportation funds continue to be prioritized to meet the needs of motorists, transit riders, goods movement, bicyclists, pedestrians, and visitors over the next 20 years while maintaining fiscal constraint?

What should the share to Federal vs. State dollars be for transportation projects? Should local governments assume a greater role in funding local projects?

What type of funding strategy should Calaveras County adopt to provide the needed transportation improvements to its transportation system while maintaining the existing system?

Support Actions to Maximize Limited Funds

The following actions are recommended to help maximize the use of limited transportation funds, regardless of the specific funding strategy preferred by the CCOG:

Transportation funds in Calaveras County should be used to develop a balanced-multimodal system for all modes. A balanced approach for State highways, local roads, transit, and non-auto modes should be pursued. The 2012 RTP reflects the balanced approach.

- The CCOG should implement the highest priority projects from the Action Element based on purpose and need, consistent with the policy direction decided by the CCOG and input by the County and City. The CCOG should pursue all discretionary and grant-based programs available so they can implement non-road projects such as transit, aviation, bike, and pedestrian. The fee programs for the County's benefit basin programs and the City of Angels RIM program should be reviewed periodically to facilitate future growth in the County.

- RTP projects that have been moved to the "unconstrained" list (Appendix 4M) should be reviewed periodically as additional funding becomes available. Priority projects that can be funded should be moved to the constrained list in the appropriate appendix in the RTP.

- A new source of maintenance funding should be pursued at the State level as opportunity arises. The CCOG, County, and City should partner with Caltrans and neighboring Regional Transportation Planning Agencies, wherever possible, to attract additional ITIP and SHOPP projects in the County. Even though the SHOPP is a Caltrans managed program earmarked for non-capacity–increasing projects on the State Highway System, local agencies should be encouraged to partner with Caltrans on important SHOPP-funded projects that have regional significance to their local areas.

ENVIRONMENTAL REVIEW

Appendix 6A provides an environmental assessment and CEQA checklist for the Calaveras County 2012 RTP. For the purpose of this assessment, the *project* is the plan itself, not the improvements identified in the Action Element – Chapter 4. Each improvement listed in the Action Element will have a full environmental analysis conducted to determine potential impacts to the environment before implementation.

The environmental assessment of this RTP is based on the CEQA guidelines for initial studies/negative declarations. All projects listed in this RTP that fall under CEQA's definition of a "project" will undergo independent environmental review when each project is proposed for construction.

The environmental document is consistent with the California Wildlife Action Plan by incorporating mitigation to integrate wildlife conservation into local land-use decisions, restoring and protecting riparian habitats, protecting essential water sources for wildlife, and controlling for invasive species. The CCOG will continue to consider FHA guidance on Planning and Environmental Linkages (PEL) when advancing projects to construction.

Appendix 1A
CCOG Public Participation Plan

Calaveras Council of Governments

PUBLIC PARTICIPATION PLAN

for Calaveras County and Angels Camp

REGIONAL TRANSPORTATION PLAN UPDATE

February 2011

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I. INTRODUCTION AND PURPOSE

A. Background

Regional Transportation Plans (RTP) are federally-required planning documents developed by Regional Transportation Planning Agencies (RTPAs), i.e. the Calaveras County Council of Governments (CCOG), in cooperation with Federal Highway Administration (FHWA), Federal Transit Administration (FTA), the California Department of Transportation (Caltrans), Tribal Governments, and other stakeholders, including system users. The purpose of the RTP is to establish regional goals, identify present and future needs, deficiencies and constraints, analyze potential solutions, estimate available funding, and propose investment strategies.

Pursuant to Title 23 CFR Part 450.322 et seq. FHWA describes the development and contents of RTPs as follows:

"The transportation plan is the Statement of the ways the region plans to invest in the transportation system. The plan shall "include both long-range and short-range program strategies/actions that lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods." The plan has several elements, for example: Identify policies, strategies, and projects for the future; Determine project demand for transportation services over 20 years; Focus at the systems level, including roadways, transit, non-motorized transportation, and intermodal connections; Articulate regional land use, development, housing, and employment goals and plans; Estimate costs and identify reasonably available financial sources for operation, maintenance, and capital investments); Determine ways to preserve existing roads and facilities and make efficient use of the existing system; be consistent with the Statewide transportation plan; and Be updated every five years or four years in air quality nonattainment and maintenance areas. RTPA's should make special efforts to engage interested parties in the development of the plan. In cases where a metropolitan area is designated as a nonattainment or maintenance area, the plan must conform to the SIP for air quality."

Transportation planning by RTPAs is a collaborative process, led by the RTPA, state, tribal, and other key stakeholders in the regional transportation system. The process is designed to foster involvement by all interested parties, such as the business community, California Tribal Governments, community groups, environmental organizations, the general public, and local jurisdictions through a proactive public participation process conducted by the RTPA in coordination with the state and transit operators. It is essential to extend public participation to include people who have been traditionally underserved by the transportation system and services in the region.

B. Purpose of the Public Participation Plan

The Public Participation Plan will be the foundation for transportation planning decisions, taking into consideration the transportation system as a whole, and the impacts on the community's economy, environment and quality of life. The Plan will be developed in consultation with all interested parties and provide reasonable opportunities for comments on the contents of the transportation plan. To this end, CCOG staff will:

- Provide adequate public notice of participation activities and document these efforts,
- Provide adequate time for public review and comment at key decision points and document,
- Provide timely notice and reasonable access to information about Transportation Issues and Processes,
- Hold public meetings at convenient and accessible locations and times,
- Consult with Native American Tribal Government (formal consultation with a federally recognized tribe in Calaveras County) and document,
- Seek out traditionally underserved populations, i.e. elderly, disabled, low income/minority (e.g. Black, Hispanic, Asian American, American Indian/Alaska Native and Pacific Islander) community groups and leaders in the public outreach process.

C. Federal and State Requirements

As the RTPA for Calaveras County, the CCOG implements TITLE VI and Environmental Justice (EJ) in its transportation planning process.

Federal:

Title VI: Nondiscrimination in Federally Assisted Programs (see appendix)

Environmental Justice (EJ): Defined in both federal and state laws, EJ concerns nondiscrimination, equitable treatment, and environmental protection for minority and/or low income populations. (see appendix)

Americans with Disabilities Act (ADA):

The Americans with Disabilities Act of 1990 stipulates involving the community, particularly those with disabilities, in the development and improvement of services. All events held for programs or projects with Federal aid and open to the general public must be made accessible to everyone, including the disabled.

Safe Accountable Flexible Efficient Transportation Equity Act- A Legacy for Users (SAFETEA-LU): Federal Transportation Authorization Bill (see appendix)

- Federal statute and regulations require that Tribal Governments be involved in the transportation planning and programming processes. SAFETEA-LU reiterates and expands existing requirements and re-emphasizes Tribal Government participation in transportation planning and programming processes as initiated by ISTEA and TEA-21. (see appendix)

State:

Brown Act, "Open Meeting Act" (see appendix)

See Figures 1 - 3 in Appendix.

D. Overview of the Planning Process

The development of the Regional Transportation Plan update is broken down into four phases. The following is a description of each phase.

Phase 1- Existing Conditions, Opportunities and Issues: In this phase, existing planning documents and information will be reviewed. An advisory group will be established to guide the process and ensure collaboration and proper sequencing. Coordination with the County and City General Plans "Preferred Land Use Scenario" will be critical during this phase. Inter-Agency coordination will also be a key component of this initial data collection and issue identification. Phase 1 will incorporate community meetings with use of the UPLAN model.

Phase 2- Development of Projects, Priorities, Policies and Financial strategies for the region in short and long range timeframes and an Environmental Document: In this phase, the mandatory RTP elements will address strategies for investing in the transportation infrastructure of Calaveras County and the City of Angels Camp that are fiscally constrained, and analyzed for Air Quality impacts with supporting TransCAD model runs.

Phase 3- Preparation of the Draft Regional Transportation and Environmental Document: In this phase the Draft RTP will be put together for public review and comment in addition to a supporting Environmental Document, outlining impacts of projects and mitigation measures. Both documents will be revised based on public and responsible/commenting agency input before coming back to for final review and approval in Phase 4.

Phase 4- Approval of the Regional Transportation Plan and Environmental Document: In this phase the Calaveras Council of Governments will adopt the Regional Transportation Plan and

Environmental Document after a public hearing. Both documents will be distributed to appropriate agencies, offices and interested parties.

II. PUBLIC ENGAGEMENT

The following section summarizes the public participation portion of the Regional Transportation Plan update and Environmental Document.

- Focus Group Meetings
- Outreach Materials and Media Coordination
- Community Workshops
- Tribal Consultation
- Project Website
- Draft RTP/ED Public Review and Comment Period
- Public Hearing/s

A. Focus Group Meetings

Focus group meetings will provide representative interests in the region an opportunity to share transportation opportunities, issues and desires that should be considered as part of the regional update. Interests that will be invited to participate include (but are not limited to):

Sierra Pacific Industries, Calaveras County Chamber of Commerce, Calaveras County Visitors Bureau, Calaveras Transit, Brand Leadership Team, Business Associations, private transportation services (Distributors), Bear Valley Mountain Resort, Community and Advocacy Groups.

B. Outreach Materials and Media Coordination

The following outreach materials are important tools for keeping citizens of Calaveras County informed.

Flyers: Flyers will be created to advertise key community meetings including focus meetings and community workshops. Flyers will be distributed via the project website, local community websites (thepinetree.net, mymotherlode.com, valleyspringsnews.com), direct mailing, member agency offices and websites, and the CCOG office.

Newspaper advertisements: Newspaper advertisement will be posted in the Calaveras Enterprise, Union Democrat, and Valley Springs News.

Press Releases: CCOG staff also strive to regularly inform local media outlets through the use of press releases. Informing the media regarding project details, important project dates, or background on what is happening or why, is an important tool for keeping Calaveras informed.

Letters to the Editor: Staff on occasion will write a letter to the editor to help with clarity on particular issues or try and provide more detailed information to area readers.

Workshop Comment Forms: Comment forms will be available at all focus meetings, workshops and the CCOG office for community members to provide written comments.

Interpreters: Although Calaveras County is fairly homogenous, there are non-English speaking residents who, upon request, can have an interpreter available to capture the input of these communities.

- Participation in the Latino Partnership working group

Public Participation Database: Contact information from workshop attendees, comment cards, and online comments will be compiled into a project database. This database will be utilized to more directly inform interested community members about upcoming events and draft documents.

- Email Notification/Distribution Lists

Fore more information on timing and notices, refer to Appendix A, Community Outreach Matrix. For a complete list of Stakeholders, refer to Appendix B, Stakeholder List.

C. Community Workshops

Three community workshops will be held throughout the process to identify existing opportunities, values, community plans and desired transportation investments. The second workshop will discuss strategies and funding to accomplish or implement earlier identified opportunities. The final workshop will be a review of the Draft RTP.

Additional workshops can be included as part of the program if opportunities for increased participation are identified.

The public will also have an opportunity to address the policy makers at a public hearing prior to adoption of the draft RTP and environmental document.

- Use of visualization tools

D. Tribal Consultation

California is the ancestral home to a number of federally-recognized and non-federally recognized Native American tribes, communities, organizations, groups and individuals. Formal consultation with the federally-recognized tribe in Calaveras County, and outreach to the Native American population in Calaveras County, are integral aspects of the Public Participation Plan.

- CCOG will establish and maintain government-to-government relations with the California Valley Miwok Tribe, a federally-

recognized tribe in Calaveras County, through formal consultation, to determine their needs or concerns.

- CCOG will also work with the Native American population as a part of the public outreach process, in determining their needs and concerns.

Establishing and maintaining government-to-government relations through formal consultation with a federally-recognized tribe, is separate from, and precedes, the public participation process.

Public participation provides for public involvement of all citizens. A strong Public Participation Plan will ensure that the RTP update includes the needs and concerns of all citizens.

E. Project Website

A 24/7 website will be available to community members to review project development, draft documents, learn about the project and process and to find out more information regarding upcoming events. An online comment form will allow community members to comment on the project from their home or shared computer.

- www.calacog.org

F. Public Hearing/s

Public hearing/s are an important piece of the public engagement process. Public forums for officially airing support or concerns regarding transportation investments in the community will be standard practice in the transportation planning processes. These opportunities will be appropriately noticed and documented so that members of the community can see their impact on the planning process.

G. Response to Written Comments

A critical component of any outreach process is acknowledgement of and timely response to written comments from members of the community. The CCOG will respond, or cause to be prepared, written responses to all documented (written) questions or comments on the planning process or strategies to move forward.

III. UPDATE OF THE PUBLIC PARTICIPATION PLAN

The CCOG Public Participation Plan is not a static document, but a dynamic strategy that will be reviewed and updated based on our experiences and the changing circumstances of the Project, transportation community, Council and member agencies. As part of every public outreach and involvement program developed for the regional transportation plan and other major planning studies that feed into the plan, CCOG will set performance measures for the effectiveness of the participation program and report

on the results. These performance reports will serve to inform and improve future outreach and involvement programs, including future updates to this Public Participation Plan.

IV. CALAVERAS COUNCIL OF GOVERNMENTS

The Calaveras Council of Governments is the Regional Transportation Planning Agency (RTPA) for the Calaveras County region, including the City of Angels Camp. The legislative bodies (County and City) formed the Council of Governments (COG) by establishing a Joint Powers Agreement to complete transportation planning for the region.

The CCOG is comprised of two City Council members, two members of the Board of Supervisors, and three public members at large, appointed by the elected members.

The CCOG meets the first Wednesday of every month at 6:30 PM at the Board of Supervisors chambers in San Andreas, 891 Mountain Ranch Road.

Staff of the CCOG include:

Executive Director		ext. 102
Senior Administrative Analyst	Melissa Raggio mraggio@calacog.org	ext. 105
Transportation Planner	Tyler Summersett, MPA tsummersett@calacog.org	ext. 104
Clerical Assistant	Elle Runyan erunyan@calacog.org	ext. 101
Office Phone	(209) 754-2094	
Office Fax	(209) 754-2096	

CCOG offices are open Monday to Friday, 8 AM to 5 PM, and are located in San Andreas, California. Physical address- 444 E. St Charles (Hwy 49). Mailing address is PO Box 280, 95249.

V. NATIVE AMERICAN-TRIBAL GOVERNMENT CONSULTATION

As mentioned earlier, there is one federally-recognized tribe in Calaveras County, the California Valley Miwok Tribe. The tribe originates from Calaveras County and retains its origin. This is a federally-recognized tribe, therefore a sovereign nation, and the RTPA is required to have formal consultation with the tribe. These efforts will involve early

coordination, consultation, and participation measures as mandated by federal and state guidelines, regulations, and/or statutes.

Their tribal office is located in San Joaquin County.

The Honorable Silvia Burley
California Valley Miwok Tribe
10601 Escondido Place
Stockton, CA 95212

Caltrans District 10's Native American Liaison may be contacted for an updated contact list of other interested Native American tribes and/or individuals who would be included in the public outreach process.

VI. CALAVERAS DEMOGRAPHICS/SOCIO-ECONOMICS

As of the census of 2000, there were 40,554 people, 16,469 households, and 11,742 families residing in the Calaveras County. The population density was 40 people per square mile. There were 22,946 housing units at an average density of 22 per square mile. The racial makeup of the county was 91.19% White, 0.75% Black or African American, 1.74% Native American, 0.85% Asian, 0.09% Pacific Islander, 2.07% from other races, and 3.31% from two or more races. 6.82% of the population were Hispanic or Latino of any race. 94.5% spoke English and 4.0% Spanish as their first language.

There were 16,469 households out of which 26.7% had children under the age of 18 living with them, 58.9% were married couples living together, 8.6% had a female householder with no husband present, and 28.7% were non-families. 23.3% of all households were made up of individuals and 10.1% had someone living alone who was 65 years of age or older. The average household size was 2.44 and the average family size was 2.85.

In the county the population was spread out with 22.8% under the age of 18, 5.5% from 18 to 24, 22.4% from 25 to 44, 31.1% from 45 to 64, and 18.2% who were 65 years of age or older. The median age was 45 years. For every 100 females there were 98.5 males. For every 100 females age 18 and over, there were 95.7 males.

The median income for a household in the county was $41,022, and the median income for a family was $47,379. Males had a median income of $41,827 versus $28,108 for females. The per capita income for the county was $21,420. About 8.7% of families and 11.80% of the population were below the poverty line, including 15.6% of those under age 18 and 6.2% of those age 65 or over.

VII. ADDITIONAL PUBLIC INVOLVEMENT OPPORTUNITIES

Calaveras Council of Governments Meetings

The CCOG meets 10 times annually. There is no meeting in January or August. Regularly scheduled meetings are held in the Board of Supervisors Chambers at 6:30

PM. The Government Center is located at 891 Mountain Ranch Road, San Andreas. All meetings are Brown Act compliant and meeting agendas can be found on the CCOG website, www.calacog.org

Technical Advisory Committee (TAC) Meetings

The Technical Advisory Committee is composed of members from Calaveras County, City of Angels, Caltrans and CCOG staff. This working group meets on the third Wednesday of the month, alternating between San Andreas and Angels Camp. The TAC discusses projects on the Overall Work Program and additional topics of regional importance. The TAC is subject to the Brown Act and has published agendas which can be found on the CCOG website, www.calacog.org

FIGURE 1

Title VI - Nondiscrimination In Federally Assisted Programs

Civil Rights Act of 1964
42 USC 2000(d)-2000(d)(1)

General

This title declares it to be the policy of the United States that discrimination on the ground of race, color, or national origin shall not occur in connection with programs and activities receiving Federal financial assistance and authorizes and directs the appropriate Federal departments and agencies to take action to carry out this policy. This title is not intended to apply to foreign assistance programs.

Section 601 -- This section states the general principle that no person in the United States shall be excluded from participation in or otherwise discriminated against on the ground of race, color, or national origin under any program or activity receiving Federal financial assistance.

Section 602 directs each Federal agency administering a program of Federal financial assistance by way of grant, contract, or loan to take action pursuant to rule, regulation, or order of general applicability to effectuate the principle of section 601 in a manner consistent with the achievement of the objectives of the statute authorizing the assistance. In seeking the effect compliance with its requirements imposed under this section, an agency is authorized to terminate or to refuse to grant or to continue assistance under a program to any recipient as to whom there has been an express finding pursuant to a hearing of a failure to comply with the requirements under that program, and it may also employ any other means authorized by law. However, each agency is directed first to seek compliance with its requirements by voluntary means.

Section 603 provides that any agency action taken pursuant to section 602 shall be subject to such judicial review as would be available for similar actions by that agency on other grounds. Where the agency action consists of terminating or refusing to grant or to continue financial assistance because of a finding of a failure of the recipient to comply with the agency's requirements imposed under section 602, and the agency action would not otherwise be subject to judicial review under existing law, judicial review shall nevertheless be available to any person aggrieved as provided in section 10 of the Administrative Procedure Act (5 USC 1009). The section also states explicitly that in the latter situation such agency action shall not be deemed committed to unreviewable agency discretion within the meaning of section 10. The purpose of this provision is to obviate the possible argument that although section 603 provides for review in accordance with section 10, section 10 itself has an exception for action "committed to agency discretion," which might otherwise be carried over into section 603. It is not the purpose of this provision of section 603, however, otherwise to alter the scope of judicial review as presently provided in section 10(e) of the Administrative Procedure Act.

FIGURE 2

The Brown Act

Open Meeting Laws In California

SUMMARY OF KEY BROWN ACT PROVISIONS

COVERAGE

PREAMBLE:

Public commissions, boards, councils and other legislative bodies of local government agencies exist to aid in the conduct of the people's business. The people do not yield their Sovereignty to the bodies that serve them. The people insist on remaining informed to retain control over the legislative bodies they have created.	54950	Ch. I

GOVERNING BODIES:

Includes city councils, boards of supervisors, and district boards. Also covered are other legislative bodies of local government agencies created by state or federal law.	54952(a)	Ch. I/II

SUBSIDIARY BODIES:

Includes boards or commissions of a local government agency as well as standing committees of a legislative body. A standing committee has continuing subject matter jurisdiction or a meeting schedule set by its parent body. Less-than-a quorum advisory committees, other than standing committees, are exempt.	54952(b)	Ch. II

PRIVATE OR NONPROFIT CORPORATIONS OR ENTITIES:

Covered only if: a. A legislative body delegates some of its functions to a private corporation or entity; or b. If a legislative body provides some funding to a private corporation or entity and appoints one of its members to serve as a voting member of entity's board of directors.	54952(c)(1)(A) 54952(c)(1)(B)	Ch. II

MEETING DEFINED

INCLUDES:

Any gathering of a quorum of a legislative body to discuss or transact business under the body's jurisdiction; serial meetings are prohibited.	54952.2	Ch. III
EXEMPTS:		
(1) Individual contacts between board members and others which do not constitute serial meetings;	54952.2(c)(1)	Ch. III
(2) Attendance at conferences and other gatherings which are open to public so long as members of (3) and (4) legislative bodies do not discuss among themselves business of a specific nature under the body's jurisdiction;	54952.2(c)(2),	
(3) Attendance at social or ceremonial events where no business of the body is discussed.	54952.2(c)(5)	
LOCATIONS OF MEETINGS:		
A body must conduct its meetings within the boundaries of its jurisdiction unless it qualifies for a specific exemption.	54954	Ch. IV
TELECONFERENCE MEETINGS:		
Teleconference meetings may be held under carefully defined conditions. The meeting notice must specifically identify all teleconference locations, and each such location must be fully accessible to members of the public.	54953	Ch. III

PUBLIC RIGHTS

PUBLIC TESTIMONY:		
Public may comment on agenda items before or during consideration by legislative body. Time must be set aside for public to comment on any other matters under the body's jurisdiction.	54954.3	Ch.IV/V
NON-DISCRIMINATORY FACILITIES:		
Meetings may not be conducted in a facility that excludes persons on the basis of their race, religion, color, national origin, ancestry, or sex, or that is inaccessible to disabled persons, or where members of the public may not be present without making a payment or purchase.	54953.2; 54961	Ch. V
COPY OF RECORDING:		

Public may obtain a copy, at cost, of an existing tape recording made by the legislative body of its public sessions, and to listen to or view the body's original tape on a tape recorder or viewing device provided by the agency.	54953.5	Ch. V

PUBLIC VOTE:

All votes, except for those cast in permissible closed session, must be cast in public. No secret ballots, whether preliminary or final, are permitted.	54953(c)	Ch. VI

CLOSED MEETING ACTIONS/DOCUMENTS:

At an open session following a closed session, the body must report on final action taken in closed session under specified circumstances. Where final action is taken with respect to contracts, settlement agreements and other specified records, the public may receive copies of such records upon request.	54957.1	Ch. IV, V/VI

TAPING OR BROADCASTING:

Meetings may be broadcast, audio-recorded or video-recorded so long as the activity does not constitute a disruption of the proceeding.	54953.5; 54953.6	Ch. V

CONDITIONS TO ATTENDANCE:

Public may not be asked to register or identify themselves or to pay fees in order to attend public meetings.	54953.3; 54961	Ch. V

PUBLIC RECORDS:

Materials provided to a majority of a body which are not exempt from disclosure under the Public Records Act must be provided, upon request, to members of the public without delay.	54957.5	Ch. V

REQUIRED NOTICES AND AGENDAS

REGULAR MEETINGS:

Agenda containing brief general description (approximately twenty words in length) of each matter to be considered or discussed must be posted at least 72 hours prior to meeting.	54954.2	Ch. IV

SPECIAL MEETINGS:

Twenty-four hour notice must be provided to members of legislative body and media outlets including brief general description of matters to be considered or discussed.	54956	Ch. IV

EMERGENCY MEETINGS:

One hour notice in case of work stoppage or crippling activity, except in the case of a dire emergency.	54956.5	Ch. IV

CLOSED SESSION AGENDAS:

All items to be considered in closed session must be described in the notice or agenda for the meeting. A model format for closed-session agendas appears in section 54954.5. Prior to matter of the closed session. If final action is taken in closed each closed session, the body must orally announce the subject session, the body generally must report the action at the conclusion of the closed session.	54954.2; 54954.5; 54957.1 and 54957.7	Ch. IV

AGENDA EXCEPTION:

Special procedures permit a body to proceed without an agenda in the case of emergency circumstances, or where a need for immediate action came to the attention of the body after posting of the agenda.	54954.2(b)	Ch. IV

FIGURE 3

ENVIRONMENTAL JUSTICE (EJ) – the intent of EJ is to address the potential impact of plans and projects on communities by having agencies fully consider these impacts from the early planning stages through construction, operation, and maintenance.

As defined by California law: Government Code Section 6540.12 and Public Resources Code Section 72000).

Environmental Justice - "the fair treatment of people of all races, cultures and income with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies".

As defined by Federal law:

In federal law, the principles behind EJ can be traced to Title VI of the Civil Rights Act of 1964, Presidential Executive Orders 12898 and 13166 (Environmental Justice and Limited English Proficiency, respectively), the National Environmental Policy Act of 1969, Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, the Transportation Equity Act for the 21st Century (initiated by ISTEA), and other laws concerning nondiscrimination, equitable treatment, and environmental protection.

FIGURE 4

Safe, Accountable, Flexible, Efficient, Transportation Equity Act- A Legacy for Users (SAFETEA-LU)

SAFETEA-LU is the federal transportation authorization bill passed in 2005. The authorization was intended to fund federal transportation priorities through 2009. The authorization allocated $244.1 billion. SAFETEA-LU represents the largest surface transportation investment in our Nation's history. SAFETEA-LU addresses the many challenges facing our transportation system today – challenges such as improving safety, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, and protecting the environment – as well as laying the groundwork for addressing future challenges. SAFETEA-LU promotes more efficient and effective Federal surface transportation programs by focusing on transportation issues of national significance, while giving State and local transportation decision makers more flexibility for solving transportation problems in their communities.

FIGURE 5

GUIDANCE:

FY 2011/2012 Regional Transportation Planning Agency Overall Work Program Guidance, Appendix F, Requirements Regarding Tribal Governments, pgs 21 – 25

2010 Regional Planning Handbook (CTC adopts), Chapter 8.01, Public Participation Plan/Public Involvement Program, pgs. 21-22

The Regional Planning Handbook and the OWP Guidance are posted at:

http://www.dot.ca.gov/hq/tpp/offices/orip/owp/index.html

Appendix 1B
Community Workshop and Community Survey Summary Report

CALAVERAS COUNCIL
of GOVERNMENTS

Calaveras Council of Governments
Regional Transportation Plan Update

Community Workshop
and
Community Survey
Summary Report

Prepared by
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Sacramento, CA 95816
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www.aimconsultingco.com
February 10, 2012

Community Workshop #1 – Summary

Calaveras Senior Center, 956 Mountain Ranch Road, San Andreas
November 17, 2011, 6:00 – 8:00 p.m.

Workshop #1 Purpose

This meeting was the first of two community meetings planned by the Calaveras Council of Governments to encourage public participation throughout the Regional Transportation Plan update. The purpose of this workshop was to review current project lists for each travel mode, determine the transportation priorities for the community, identify opportunities and challenges to transportation access and mobility, and to gather input from community members.

Publicity & Noticing

More than 60 local businesses and organizations received phone calls informing them of the project and the scheduled community meetings.

Community Workshop flyers were sent via e-mail to interested agencies, vicinity organizations/businesses, and interested individuals. The notice was also posted to the Calaveras Council of Governments web site (http://www.calacog.org/).

Press releases and media advisories were sent to the following media outlets:

- Calaveras News Bureau
- Calaveras Enterprise
- Sierra Lode Star
- The Mountain Chronicle
- Pine Tree
- Copper Online
- Copper Gazette
- The Valley Springs News
- Sierra Mountain Times
- Union Democrat
- Ledger Dispatch
- The Local Scoop News

An advertisement ran on November 8th, 11th and 15th in the Calaveras Enterprise announcing both scheduled community meetings. The Copper Gazette, The Pine Tree and the Calaveras Enterprise ran short articles on October 27th, 28th, November 1st, 4th and 10th.

Workshop #1 Format

The workshop was organized as an open house with a series of information stations where the public could get information, ask questions and provide feedback using comment cards. The format allowed an opportunity to gather, document and attribute as many comments/questions/concerns in an efficient manner.

Rich Ledbetter of Fehr and Peers, provided a brief presentation at 6:30 p.m. He introduced the project team and provided a presentation regarding an overview of the RTP process and background on the Calaveras region's most recent RTP. There was also a brief question and answer session.

Information Stations:

- General Information: This table included a sign-in sheet, comment cards and printed copies of the display boards.
- Survey Station: This station included a printed copy of the on-line transportation needs survey, also available on the CCOG web site.

The display boards below included a list of current projects in that topic area as well as columns to rank the project's importance as high, medium or low importance:

- City and County Road and Bridge Projects
- Capital Improvement Projects
- Transit Improvements
- Non-Motorized Bike and Class I and II Facilities
- Aviation Improvements
- Benefit Basin 20 Year Vision

Workshop #1 Comments

Comments received via comment cards included:

- 1.) Sidewalks and safe crosswalks for Calaveras H.S. students; 2.) Off street bicycle path through S.A. library; 3.) Bring back bus to Lodi; 4.) Increase number of bus trips to Vista del Lago for shopping and Curves attendance.

Additional comments and project suggestions were collected through the on-line survey available on the CCOG web site.


Calaveras Council of Governments
Regional Transportation Plan Update
COMMENT CARD

Community Workshop #2 – Summary

Bret Harte Union High School, 322 South Main Street, Angels Camp
January 26, 2012, 6:00 – 8:00 p.m.

Workshop #2 Purpose

This meeting was the second of two community meetings held by the Calaveras Council of Governments to encourage public participation throughout the Regional Transportation Plan update. The purpose of this workshop was to review current project lists for each travel mode, determine the transportation priorities for the community, identify opportunities and challenges to transportation access and mobility, and to gather input from community members.

Publicity & Noticing

More than 60 local businesses and organizations received phone calls informing them of the project and the scheduled community meetings.

Community Workshop flyers were sent via e-mail to interested agencies, vicinity organizations/businesses, and interested individuals. The notice was also posted to the Calaveras Council of Governments web site (http://www.calacog.org/).

Press releases and media advisories were sent to the following media outlets:

- Calaveras News Bureau
- Calaveras Enterprise
- Sierra Lode Star
- The Mountain Chronicle
- Pine Tree
- Copper Online
- Copper Gazette
- The Valley Springs News
- Sierra Mountain Times
- Union Democrat
- Ledger Dispatch
- The Local Scoop News

An advertisement ran on January 16th, 20th and 24th in the Calaveras Enterprise announcing both scheduled community meetings. The meeting notice was also posted on ThePineTree.net.

Workshop #2 Format

The workshop was organized as an open house with a series of information stations where the public could get information, ask questions and provide feedback using comment cards. The format allowed an opportunity to gather, document and attribute as many comments/questions/concerns in an efficient manner.

Rich Ledbetter of Fehr and Peers, provided a brief presentation at 6:30 p.m. He introduced the project team and provided a presentation regarding an overview of the RTP process and background on the Calaveras region's most recent RTP. There was also a brief question and answer session.

Information Stations:

- General Information: This table included a sign-in sheet, comment cards and printed copies of the display boards.
- Survey Station: This station included a printed copy of the on-line transportation needs survey, also available on the CCOG web site.

The display boards below included a list of current projects in that topic area as well as columns to rank the project's importance as high, medium or low importance:

- City and County Road and Bridge Projects
- Capital Improvement Projects
- Transit Improvements
- Non-Motorized Bike and Class I and II Facilities
- Aviation Improvements
- Benefit Basin 20 Year Vision

Workshop #2 Comments

No written comments were received.

Additional comments and project suggestions were collected through the on-line survey available on the CCOG web site.

Community Survey Results

The Transportation Needs Assessment Community Survey was open for community input on November 1, 2011. The on-line survey link was sent out via e-mail to interested agencies, vicinity organizations/businesses, and interested individuals. The link was also posted to the Calaveras Council of Governments website (http://www.calacog.org). A printable version of the survey was also available on the website and at both community workshops. The survey was open for input until February 10, 2012.

Over 30 community members participated in the on-line survey identifying transportation needs in the community. Participants were asked to describe any needed improvement related to roadways, intersections, public transit services, sidewalks, bike paths, or any other part of the transportation network in Calaveras County. Participants were then asked to identify what purpose each suggested improvement would serve. A majority of respondents recommended roadway improvements and bike and pedestrian improvements. The results for the entire survey are shown on the following pages. Community responses are sorted according to improvement type.

click here to take the online transportation project survey or **click here** for a printable version of the survey.

SURVEY RESPONSES TO QUESTION 1:

Please rank, using the numbers from 1 to 5 (number 1 is your highest priority), the following transportation needs in the Calaveras region.					
	First	Second	Third	Fourth	Fifth
Invest in more road maintenance	55%	19%	16%	7%	3%
Invest in more transit, pedestrian and bicycle options	39%	16%	13%	10%	23%
Improve traffic safety	7%	55%	29%	10%	0%
Decrease traffic congestion	0%	10%	32%	45%	13%
Improve traffic flow by allowing more vehicles on the roadway	0%	0%	10%	29%	61%

Survey responses to question 2

Describe one project proposal here; for example any needed improvement to roadways, intersections, public transit services, sidewalks, bike paths, or any other part of the transportation network in Calaveras County.	
Bike and Pedestrian Improvements	**This Project Would**
In the San Andreas Mobility Plan we have identified many needed projects in San Andreas. As part of the plan, we would like to see traffic calming on St Charles (hwy 49) again referenced in SA Mobility Plan	• Increase safety • Reduce traffic congestion • Encourage other transportation modes • Other: "Angle parking, planter areas, cross walks, bike paths/ mobile chairs."
Create multi-use paths in communities, i.e. Mountain Ranch	• Encourage other transportation modes
Repave Salt Springs Reservoir Road and Salt Springs Valley loop road. The road is in really terrible shape, full of pot holes, large cracks etc. This is a favorite biking route in the county, but it is really hard on bikes due to the roughness of the road.	• Increase safety • Encourage other transportation modes
Complete sidewalk networks in all communities	• Encourage other transportation modes than automobile
Add dedicated bike lanes on major roadways in the county including Highways 4 and 49.	• Increase safety • Encourage other transportation modes
Bike lanes on highway 49 all the way. Sidewalks in San Andreas	• Improve traffic flow • Increase safety • Reduce traffic congestion • Encourage other transportation modes
Sidewalks in San Andreas.	• Improve traffic flow • Increase safety • Reduce traffic congestion • Encourage other transportation modes • Other: "People would get exercise, spend more time outdoors, and know their community better

Pope Street, San Andreas, Sidewalk for kids to walk on to/from elem. school out of the roadway	• Increase safety • Encourage other transportation modes • Other: "Enhance the town of San Andreas."
Plus it would be nice to have a fully paved bike route between Murphys and Highway 4!	• Improve traffic flow • Increase safety • Reduce traffic congestion • Encourage other transportation modes
Crosswalks need to be lit so all pedestrians (esp. children and elderly) can safely cross SR 49 to schools and shopping - like Jackson has done near their park on SR 49.	• Increase safety • Encourage other transportation modes • Other: "Besides safety, traffic would be slowed through town and alternative modes would be more attractive."
Speed on Vista del Lago – pedestrian/students too fast! Add multiple stop signs.	• Increase safety • Other: "Pedestrian safety and vehicle."
Better pedestrian walkways, trails, bicycle to help cut down on the use of vehicles. Also helpful public transportation.	• Encourage other transportation modes
As a Murphys resident I regret the lack of bike lanes / walking paths along the downtown routes, along Highway 4 and onto tourists destinations (wineries).	• Increase safety • Reduce traffic congestion • Encourage other transportation modes • Other: "In addition to reducing vehicle congestion, safe ways for peds/bikes to travel improves the health of those who use the paths (not to mention lessening oil dependence)."

Cost Considerations	This Project Would
Just invest in the roads we already have - keep the cost of governance down in our county and maybe attract some real economic growth engines!	• Increase safety
Our county needs to make every effort to keep costs at a minimum. We do not have an industrial base so as to attract real jobs and industry, so it does not make sense to burden our residents with the cost of bike and pedestrian options for a rural and retired population. Keep roads safe and in good repair - nothing else is necessary.	• Increase safety
Road Improvements	**This Project Would**
Improve or add shoulders to roadway. Add passing lanes and turn-outs	• Increase safety • Reduce traffic congestion
Continued pavement and shoulder maintenance. Less disrupting bicycle paths and unnecessary stop signs, for example, Valley Springs UNUSED bicycle path. We live in the country and do not need sidewalks or street lighting and the associated maintenance of such	• Other: "Save the County taxpayers some money.
Pave Wharregard Rd apron onto Rail Road Flat Road. Widen intersection Sheep Ranch Rd Avery/Murphys "Y"	• Increase safety
Hwy 49S from six mile bridge to the new improvement at Whittle Rd. Put in a long middle lane for turning on to Gun Club Rd. and Oars and allow traffic to flow without as many delays during fair and other events at fair grounds. And re-stripe as necessary. Take out curves N&S of Carson Hill between recent improvements.	• Improve traffic flow • Reduce traffic congestion • Encourage other transportation modes • Other: "Help commerce."
Widen shoulders of existing roads Valley Springs intersection needs work. Route behind, through shopping centers AM	• Increase safety • Reduce traffic congestion
Six Mile Road between Murphys and Highway 4 should be improved, widened and paved to better accommodate the huge amounts of traffic generated by large events at Ironstone. Disaster waiting to happen out there without adequate ingress and egress.	• Improve traffic flow • Increase safety • Reduce traffic congestion • Encourage other transportation modes
Create a shorter route from Highway 26 in Valley Springs to Highway 49 and add turn pockets at the 4 stop at 12/26 (which I believe is "in the works?")	• Improve traffic flow • Increase safety • Reduce traffic congestion

CCOG should seriously undertake efforts supporting a county ordinance for "no compression brakes" through town, especially the north side;	
Widen SR49 between San Andreas and Angels Camp adding paved shoulders - also add additional passing lanes.	• Increase safety • Other: "Would make this section safer for both vehicles and bicycles with a wider roadway."
Fix the road from MT. Ranch to Rail Road Flat--you know the turns I mean?	• Increase safety
Improve the intersection at Highway 26 and Vista Del Lago. It takes too long to pull onto the Highway from Vista Del Lago, especially during commute hours.	• Increase safety • Reduce traffic congestion
Add passing lanes on Mountain Ranch Road.	
Wharregard Road apron onto RRF, both county roads, currently not paved and hazardous.	• Increase safety • Other: "Would enable normal turn into Wharregard rather than crossing yellow double to make sharp turn."
Ospital Road between Hwy 26 and Southworth Road is in pitiful condition. It needs a major repavement not just a patch job. Drive this road and see how poor it currently is.	• Increase safety • Other: "Repaired potholes on shoulder would no longer cause drivers to swerve over the center line to avoid them. It is currently a dangerous situation to drive this road and come upon drivers over the center line at a blind hill crest."
Consider installing a round-about at 12 and 26 in Valley Springs to help with the stopped traffic in the morning.	• Improve traffic flow • Increase safety • Reduce traffic congestion

Sheep Ranch Rd, from Murphys to Sheep Ranch, perhaps the worst road in Calaveras County, the road has been patched for years and is now in need of an overlay.	• Improve traffic flow • Increase safety • Reduce traffic congestion • Encourage other transportation modes • Other: "Help save wear and tear on vehicles that use this road
Center line markers on major roads like Mountain Ranch/Railroad Flat to help people know when they cross over. Bots dots?	• Increase safety
Paving Avery Sheep Ranch Road.	• Improve traffic flow • Increase safety • Other: "Increase life of vehicles that use that road."
Widen and straighten a one mile stretch of Moran road that is currently not safe and hardly usable yet feeds Avery Middle School, the Avery dump, the Green Debris Chipping location in Avery, the Avery Post Office and Avery businesses and also is the designated Escape Route for disasters. Fire and ambulance vehicles will not use this stretch of road unless death is eminent.	• Improve traffic flow • Increase safety • Other: "Support disaster evacuation route and eliminate injury and death to citizens and children and allow a fast access for emergency vehicles."
TRANSIT IMPROVEMENTS	**THIS PROJECT WOULD**
I would like to see more readily available information pertaining to public transit. Where do you find out what is currently available? There is a need for seniors and the public in general who do not drive for whatever reason.	• Other: "It would make Calaveras County a more attractive place to live by offering more public services."
Restore transit frequency on existing routes as soon as additional funding is available to encourage use.	• Encourage other transportation modes • Other: "Would reduce the number of passenger vehicle trips."

Appendix 2A

Transportation Concept Reports – District 10

SR 4 – February 2002

SR 12 – January 2012

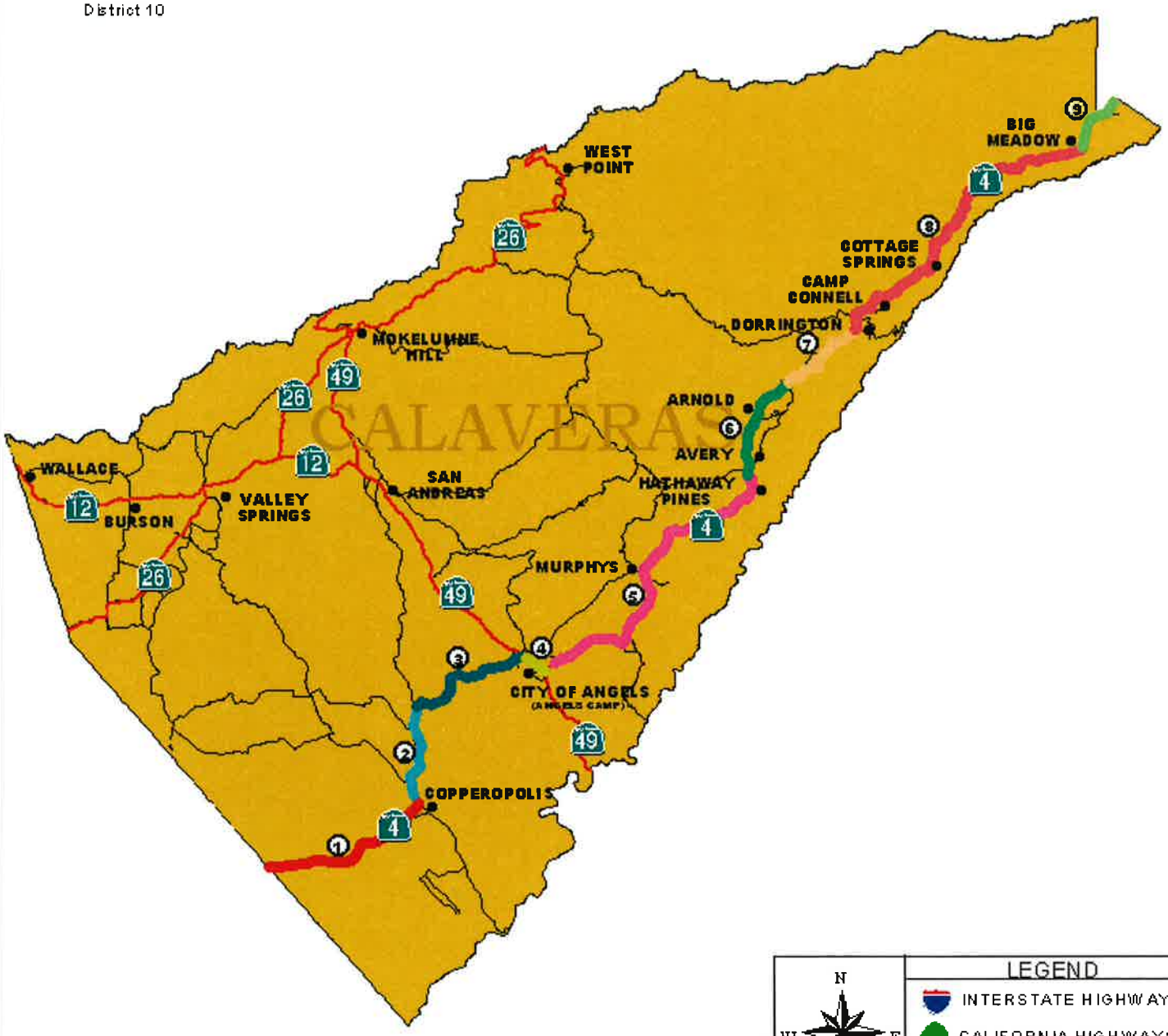
SR 26 – June 2003

SR 49 – June 2010

ROUTE 4 CORRIDOR STUDY
Segmentation Map – Calaveras County

Caltrans
District 10

Department of Transportation
District 10
Office of System Planning



EXECUTIVE SUMMARY

SEGMENT	POST MILES	LOCATION	1997 LOS	CURRENT FACILITY	2020 LOS W/O IMPROVEMENTS	2020 CONCEPT LOS	2020 CONCEPT FACILITY
1	0.00-8.14	Stanislaus Co. Line to O'Byrnes Ferry/Rock Cr. Rd.	B	2-Lane Expressway	D	C	4-Lane Expressway **
2	8.14-9.901	O-Byrnes Ferry Rd./Rock Cr. Rd. To 4 mi. S. of Hunt Rd.	D	2-Lane Expressway	E	C	4-Lane Expressway
3	9.901-20.708	4 mi. S. of Hunt Rd. to West Jct. City of Angels	D	2-Lane Conventional	E	C	4-Lane Expressway
4	20.7008-22.208	West City of Angels to East City of angels	C	2-Lane Expressway	D	C	4-Lane Expressway
5	22.208-37.35	East City of Angels to West Moran Road	D	2-Lane Conventional	E	C	2-Lane Conventional ***
6	37.35-42.62	West Moran Road to East Moran Road	E	2-Lane Conventional	F	C	2-Lane Conventional ***
7	42.62-47.14	East Moran Road to Dorrinton	D	2-Lane Conventional	E	C	2-Lane Conventional ***
8	47.14-62.84	Dorrington to Big Meadows	D	2-Lane Conventional	D	C	2-Lane Expressway ***
9	62.84-65.87	Big Meadows to Alpine County Line	D	2-Lane Conventional	D	C	2-Lane Expressway ***

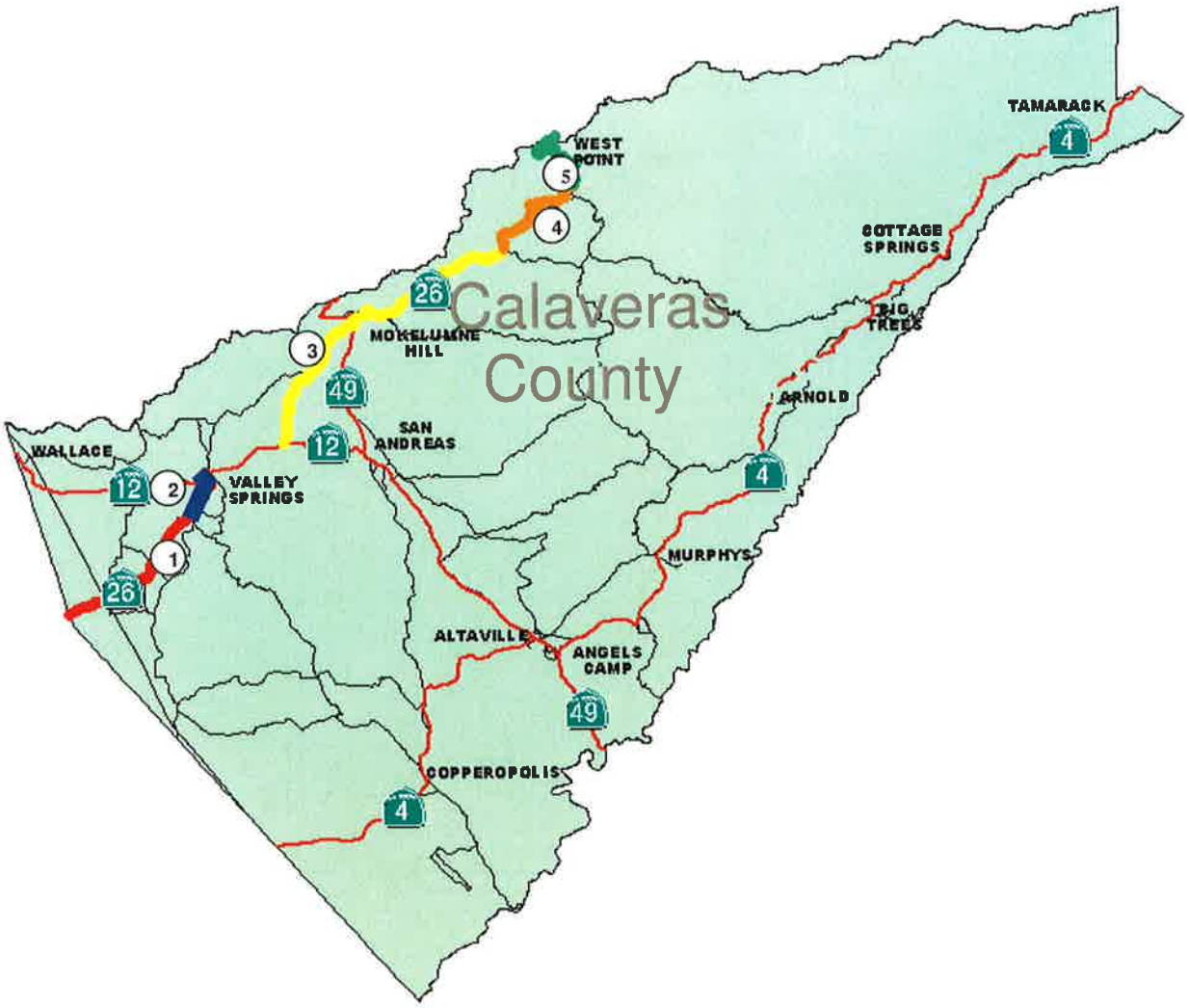
** With left turn lanes as needed

*** With passing lanes and/or left turn lanes, as needed

Caltrans
District 10

ROUTE 26 CORRIDOR STUDY
Segmentation Map – Calaveras County

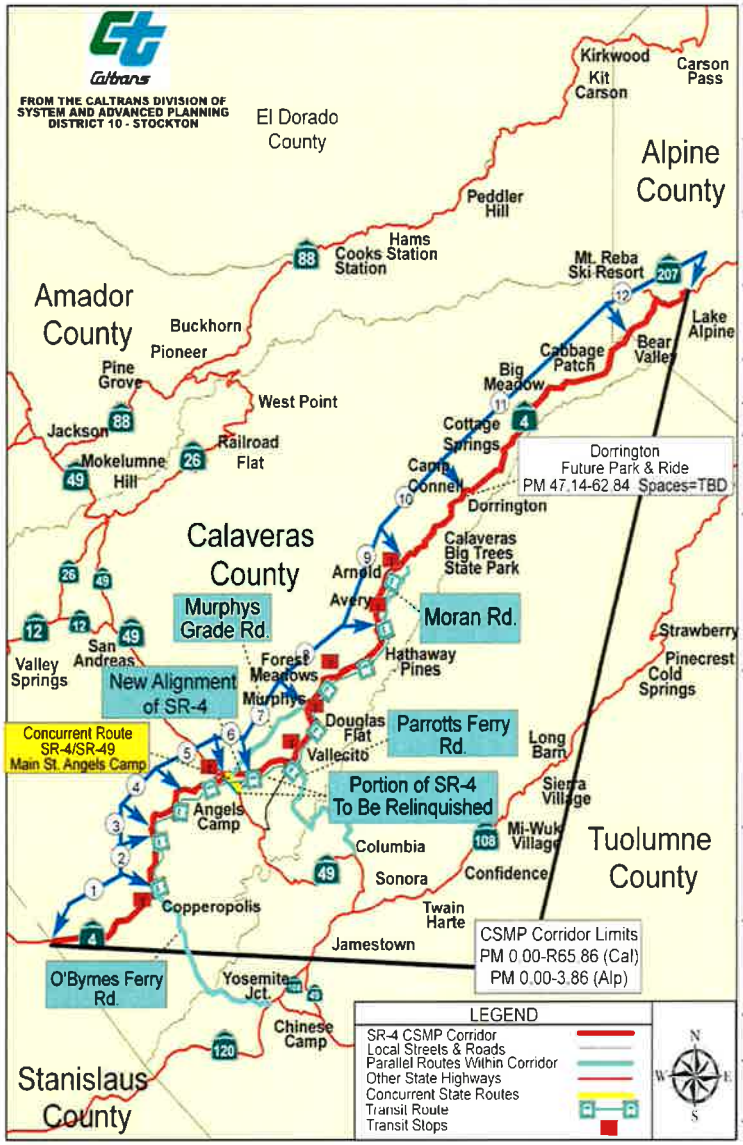
Department of Transportation
District 10
Office of System Planning



EXECUTIVE SUMMARY

SEGMENTS	POST MILE/ KILOMETER POST	LOCATION	2000 LOS	CURRENT FACILITY	2020 LOS W/O IMPROVEMENTS	2020 CONCEPT LOS	2020 CONCEPT FACILITY
1	0.00-7.62/ 0.00-12.26	Calaveras County Line to Silver Rapids Rd.	C	2-lane conventional	C	D	2-lane conventional with passing lanes
2	7.62-10.43E/ 12.26-16.78E	Silver Rapids Rd. to East Jct. SR-12	D	2-lane conventional	E	D	5-lane conventional or alternate alignment/connector
3	10.43E-26.79/ 16.78E-43.11	Jct. SR-12 to Ridge Rd.	B	2-lane conventional	B	D	2-lane conventional with left turn lanes
4	26.79-33.64/ 43.11-54.13	Ridge Rd. to West Point	A	2-lane conventional	B	D	2-lane conventional with passing and continuous left turn lanes
5	33.64-38.32/ 54.13-61.66	West Point to the Amador County Line	B	2-lane conventional	C	D	2-lane conventional with passing lanes

FIGURE: 5.0.1: Ten Year Implementation Plan (2017)



Seg	Postmile Segment	Description	2006 AADT	2006 LOS W/O Bond Project	2006 LOS With Bond Project	10 Year Implementation Plan (10 years from Begin Construction Date of SR-4 Bond Project (2017) (Angels Camp Expressway - 2007))						Beyond 2017			
						Other Modes	ITS	PeMS	Operational	Rehab.	Interchange/ Intersection	Capacity	Operational	Interchange/ Intersection	Capacity
						Funded	Funded	Funded	Funded	Funded	Funded	Funded	Funded	Funded	Funded
						Unfunded	Unfunded	Unfunded	Unfunded	Unfunded	Unfunded	Unfunded	Unfunded	Unfunded	Unfunded
12	03.17-R03.89 (Alp Co)	Closure gate #1 to Lake Alpine	1,150	C											
11	R47.07 (Cal Co) -03.17 (Alp Co)	Dorrington (begin expressway) to closure gate #1	1,700	C											
							65								
10	R42.62-R47.07	East Moran Rd. to Dorrington (begin expressway)	4,000	D											
							63.64								
9	37.35-R42.62	West Moran Rd. to East Moran Rd.	10,500	E					37						
						35-36, 38-62									
8	29.37-37.35	Main St. (Murphys) to West Moran Rd.	10,600	D					30						
						26,27,28			29,31,32						
7	23.40-29.37	0.56 mi. E. of Rolleri Bypass Rd. (end new alignment) to Jct. Main St. (Murphys).	9,150	D											
						19, 23,24,25			20,21,22						
6	R21.20-23.40	West Jct. of SR-49 Angels Camp (begin new alignment- "Angels Camp Expressway" - programmed) to 0.56 mi. E. of Rolleri Bypass Rd. (end new alignment)	6,850	D	D							14			
						12,13,17,18				15		16			16
5	R16.40-R21.20	Wagon Trail Realignment end to West Jct. SR-49 Angels Camp (begin new alignment" - Angels Camp Expressway") (4.80 mile expressway gap)	4,850	C											
						9					10,11			11	
4	R10.30-R16.40	Begin new Wagon Trail Realignment (expressway-programmed) to Wagon Trail Realignment end	4850	C					8			6			
						7,9									
3	R09.90-R10.30	4 mi. S. of Hunt Rd. (end expressway) to begin new Wagon Trail Realignment (expressway)(.40 mile expressway gap)	4,850	C											
						5									
2	R08.14-R09.90	O'Byrnes Ferry Rd. to 4 mi. S. of Hunt Rd. (end expressway)	4,860	C											
						5									
1	R00.00-R08.14	Sta. Co. Line to O'Byrnes Ferry Rd. (expressway)	5,790	C											
							3		1,2,4				1		

Green = Programmed/Funded/Partially Funded
Blue = Planned/Unfunded

SR-49 Concept Facility

Segment	Concept Facility	Ultimate Transportation Concept
1	2 Lane Conventional Hwy	4 Lane Conventional Hwy
2	**4 Lane Conventional Hwy -- or Alternate Alignments as identified in Calaveras Council of Government (CCOG) Regional Transportation Plan and City of Angels General Plan**	4 Lane Conventional Hwy
3		
4		
5	2 Lane Conventional Hwy	4 Lane Conventional Hwy
6	**4 Lane Conventional Hwy --Calaveras County, the community of San Andreas and CCOG are currently investigating possible need for alternate alignment**	4 Lane Conventional Hwy
7	2 Lane Conventional Hwy	4 Lane Conventional Hwy
8	2 Lane Conventional Hwy	4 Lane Conventional Hwy

Existing and Future Traffic Projections

2010 Average Daily Traffic (Range low to high)

4,940 Junction (Jct.) SR-12 to Jct. SR-26 (North of San Andreas)
11,470 Mountain Ranch Rd to Jct. SR-12 in San Andreas

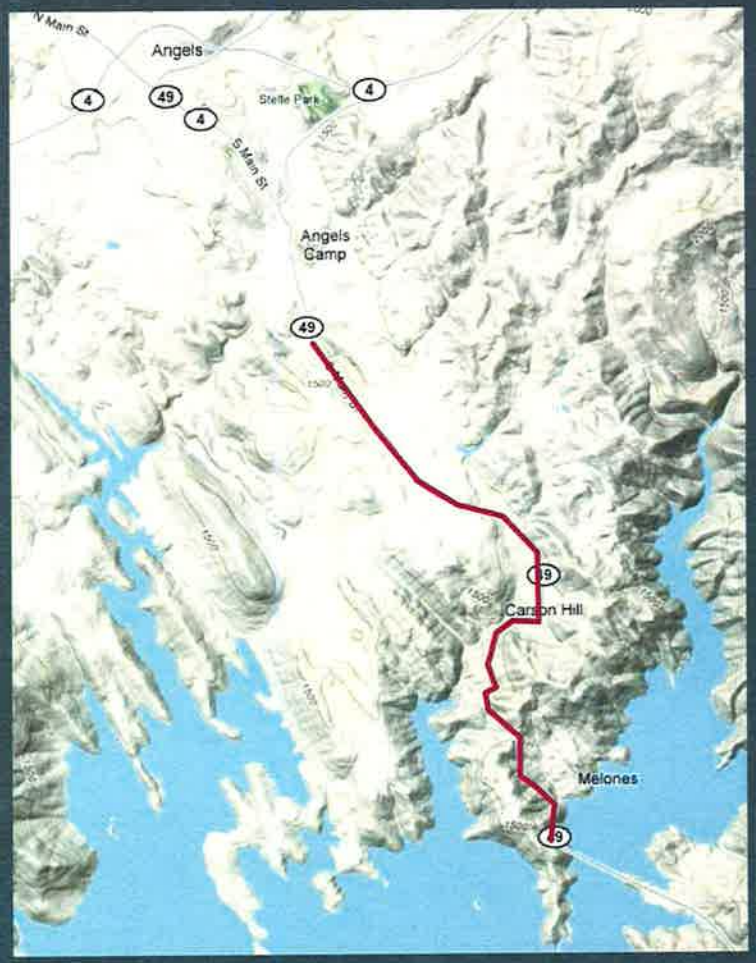
2030 Average Daily Traffic

9,100 Jct. SR-12 to Jct. SR-26 (North of San Andreas)
19,350 Mountain Ranch Rd to Jct. SR-12 in San Andreas

2007 Truck Volume

325 Jct. SR-12 to Jct. SR-26 North of San Andreas
1,130 North Jct. SR-4 to South Jct. of SR-4 in Angels Camp

Segment 1
Tuolumne County/Calaveras County Line to South Angels Camp City Limits



2007 AADT	2030 AADT
6,400	12,230
LOS C	LOS D

CONCEPT FACILITY

2 Lane Conventional Highway

ULTIMATE TRANSPORTATION CONCEPT

4 Lane Highway

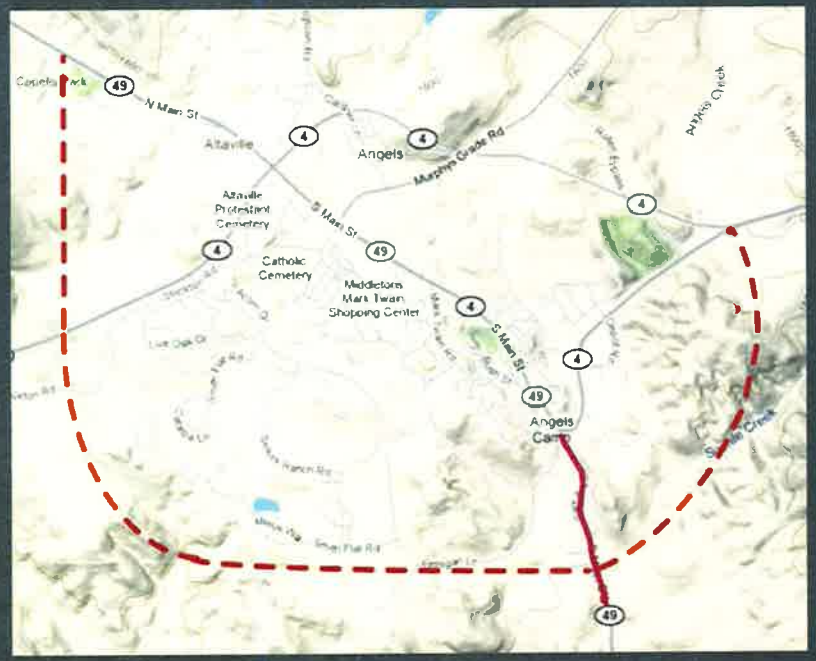
PLANNED IMPROVEMENTS

Long Term

RTP Tier II - Class II Bikeway - Signage only improvements – New Melones Reservoir to Glory Hole Road - 4.1 miles

RTP Tier II - .98 miles Class III Bikeway Rural Road Improvements from Glory Hole Road to S. City of Angels City Limits

Segment 2
South Angels Camp City Limits to South Junction
SR-4



2010 AADT	2030 AADT
5,650	9,650
LOS C	LOS D

CONCEPT FACILITY

4 Lane Conventional Highway

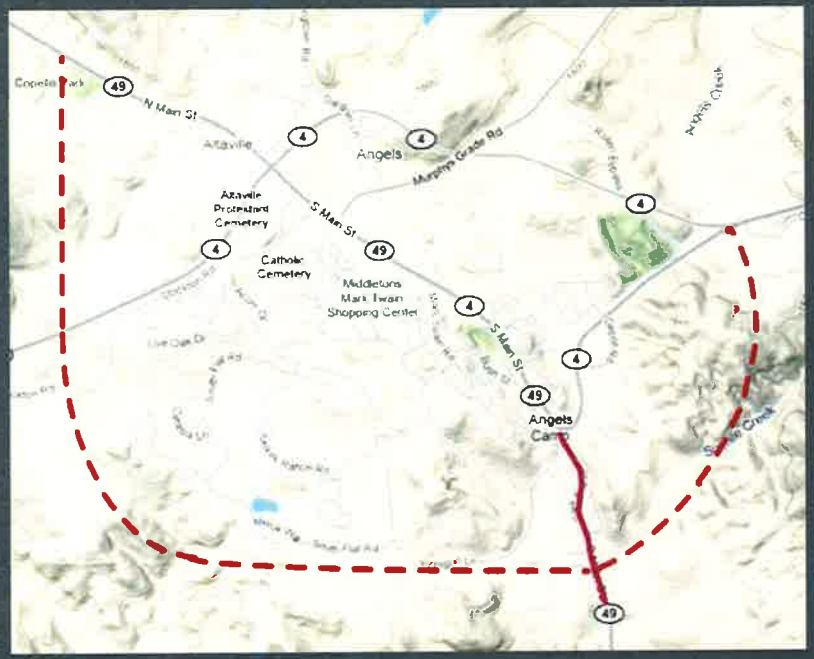
-- or Alternate Alignments as identified in Calaveras Counci of Government (CCOG) Regional Transportation Plan and City of Angels General Plan

(SR-49 Access Management Plan)

ULTIMATE TRANSPORTATION CONCEPT

4 Lane Highway

Segment 2 (Cont'd) South Angels Camp City Limits to South Junction SR-4



PLANNED IMPROVEMENTS

Short Term

RTP Tier I - S. SR-4/49 Angels Camp Bridges and Intersection Improvements

Long Term

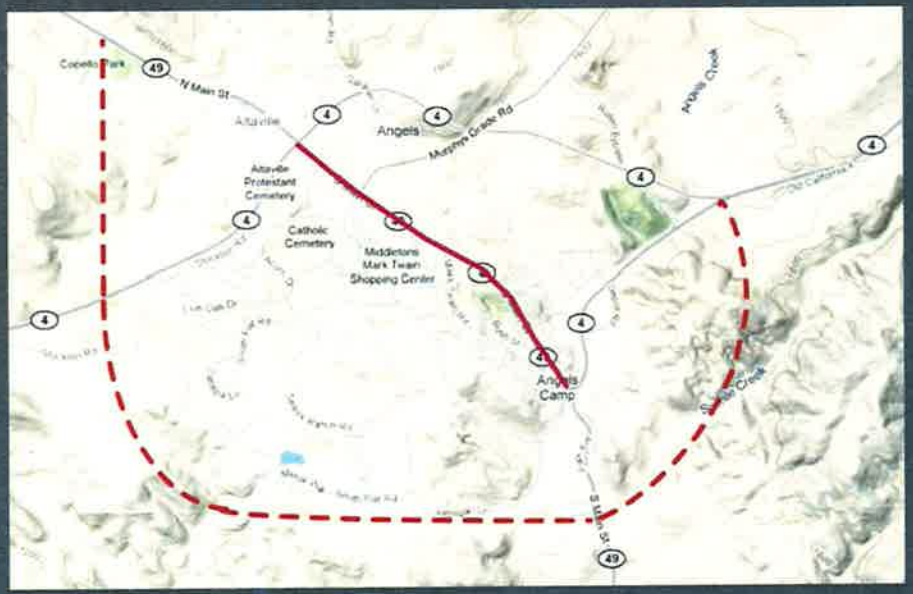
RTP Tier II - Southeast SR-49 New Alignment – New roadway to extend the SR-4 New Alignment past the fairgrounds

City of Angels General Plan - North/Southwest Alignment

RTP Tier II - Construct 400 ft. long pedestrian way at south intersection of SR-4/49

State Highway Operations and Protection Program (Ten Year SHOPP) - Traffic Monitoring Station east of Angels Camp S. Jct. SR-4/49

Segment 3, South Junction SR-4 to North Junction SR-4



2010 AADT	2030 AADT
9,850	15,700
LOS D	LOS E

CONCEPT FACILITY

4 Lane Conventional Highway

-- or Alternate Alignments as identified in Calaveras Council of Government (CCOG) Regional Transportation Plan and City of Angels General Plan

(City of Angels Access Management Plan)

ULTIMATE TRANSPORTATION CONCEPT

4 Lane Highway

Segment 3, Cont'd
South Junction SR-4
to North Junction SR-4

PLANNED IMPROVEMENTS

Long Term

City of Angels General Plan - North/Southwest Alignment

RTP Tier II- Reconstruct Intersection at SR-49/Murphys Grade Rd.

RTP Tier II - Sidewalks Hardscrabble/ Raspberry to SR-4/49 North

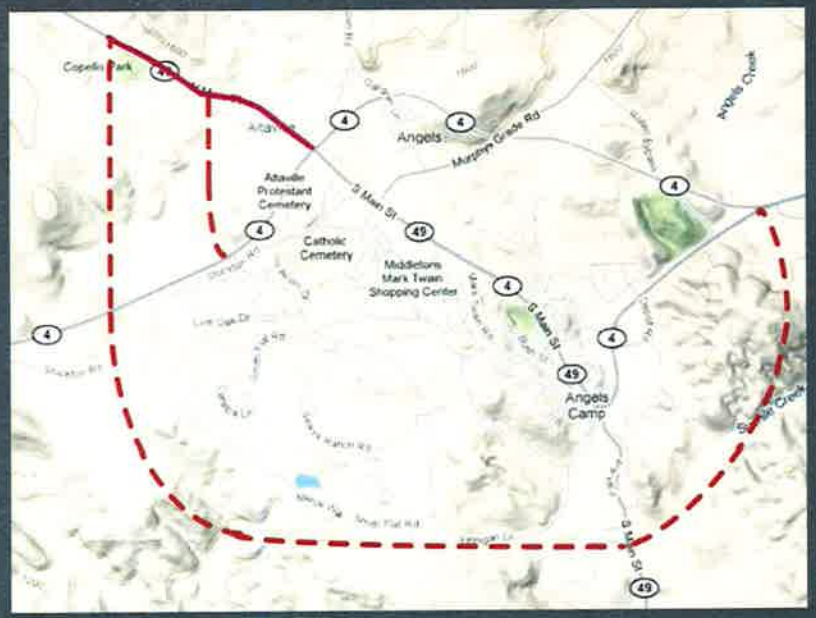
RTP Tier II - Rehabilitate old rock walkway and upgrade existing walkway

RTP Tier II - Class II Bikeway – from SR-4 N. to SR-4 S. 2.4 miles

Ten Year SHOPP - PeMS – Northbound and Southbound SR-49 north of Murphys Grade Rd.

PLANNED LAND USES

Segment 4
North Junction SR-4 to North Angels Camp City Limits



2010 AADT	2030 AADT
9,250	14,300
LOS D	LOS E

CONCEPT FACILITY

4 Lane Conventional Highway

--or Alternate Alignments as identified in Calaveras Council of Government (CCOG) Regional Transportation Plan and City of Angels General Plan

(City of Angels Access Management Plan)

ULTIMATE TRANSPORTATION CONCEPT

4 Lane Highway

PLANNED IMPROVEMENTS

Short Term

RTP Tier I - County wide Transit Bench and Shelter Program – Frog Jump Plaza

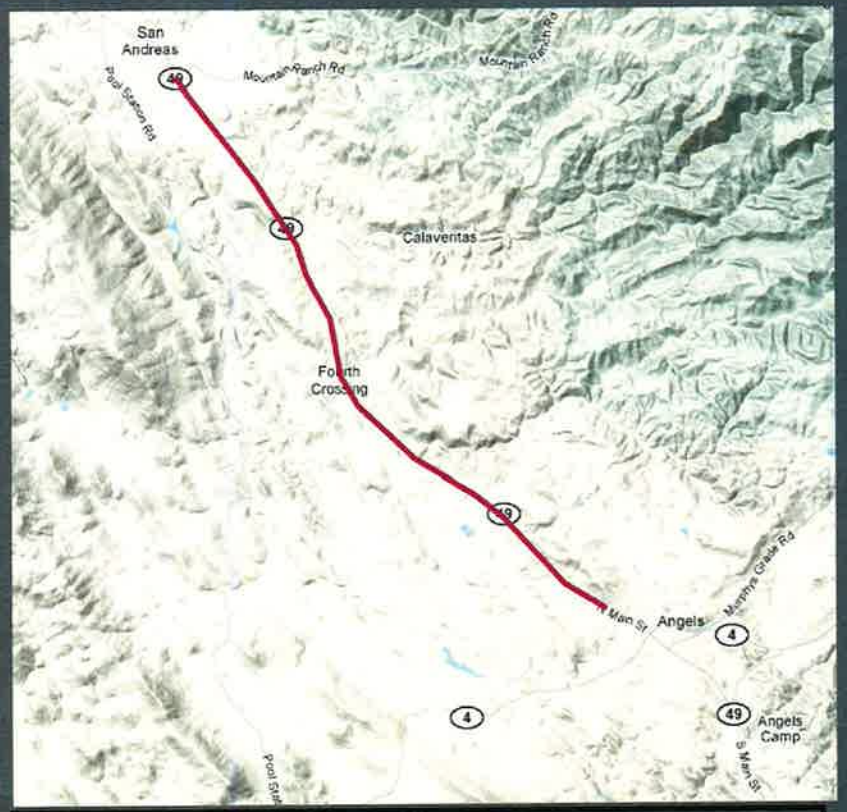
Long Term

RTP Tier II - SR-4 Angels Camp Bypass Intersection Improvement at Dogtown Rd.

RTP Tier II - Angels Oak Drive Extension North – Angels Oaks Drive to SR-49

City of Angels General Plan - North/Southwest Alignment

Segment 5
North Angels Camp City Limits to Mountain Ranch Rd.



2007 AADT	2030 AADT
7,400	12,600
LOS D	LOS D

CONCEPT FACILITY

2 Lane Conventional Highway

ULTIMATE TRANSPORTATION CONCEPT

4 Lane Highway

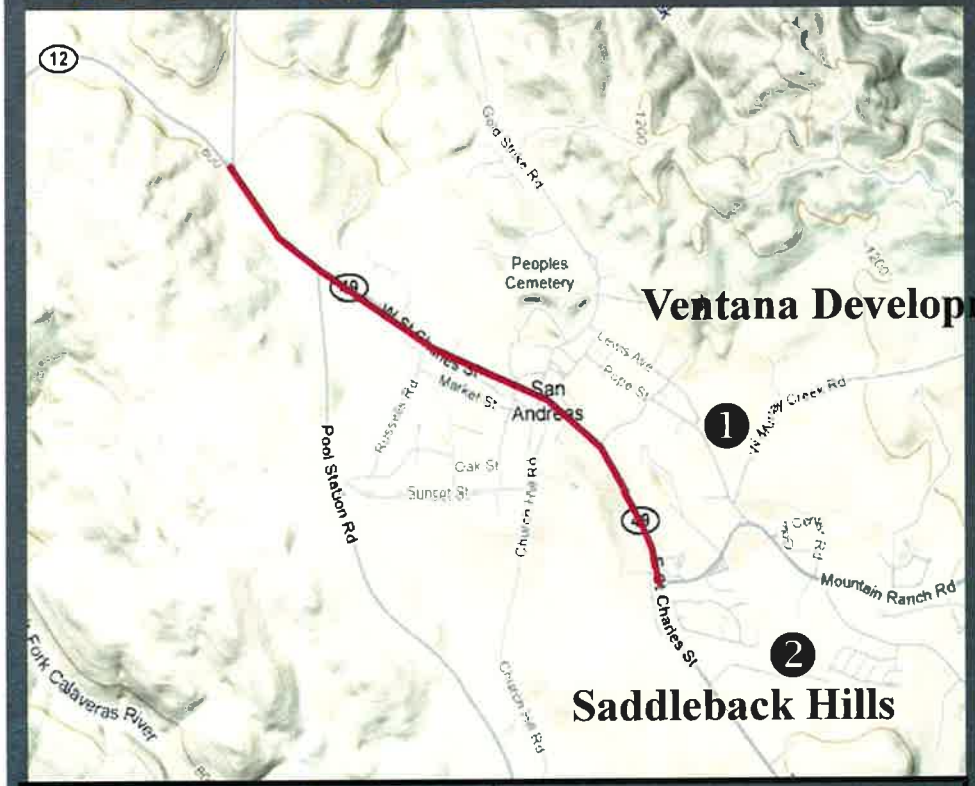
PLANNED IMPROVEMENTS

Long Term

RTP Tier II – Class III Bikeway Rural Road Improvements from SR-49 Angels Camp to San Andreas – 9.29 miles

Ten Year SHOPP – PeMS Traffic Detection –Northbound and Southbound SR-49 north of Altaville, north of the City of Angels City Limits

Segment 6
Mountain Ranch Rd. to Jct. SR-12



2007 AADT	2030 AADT
11,470	19,350
LOS D	LOS E

CONCEPT FACILITY

4 Lane Conventional Highway

--Calaveras County, the community of San Andreas and CCOG are currently investigating possible need for alternate alignment

ULTIMATE TRANSPORTATION CONCEPT

4 Lane Highway

PLANNED IMPROVEMENTS

Short Term

RTP Tier I - SR-49/Mountain Ranch Rd. Interchange and Mountain Ranch Rd. reconstruction– 10.2 miles between SR-49 to Sheep Ranch Road

Long Term

RTP Tier II - Class II Bikeway -Mountain Ranch Rd. To Pool Station Rd in San Andreas – 1.4 miles

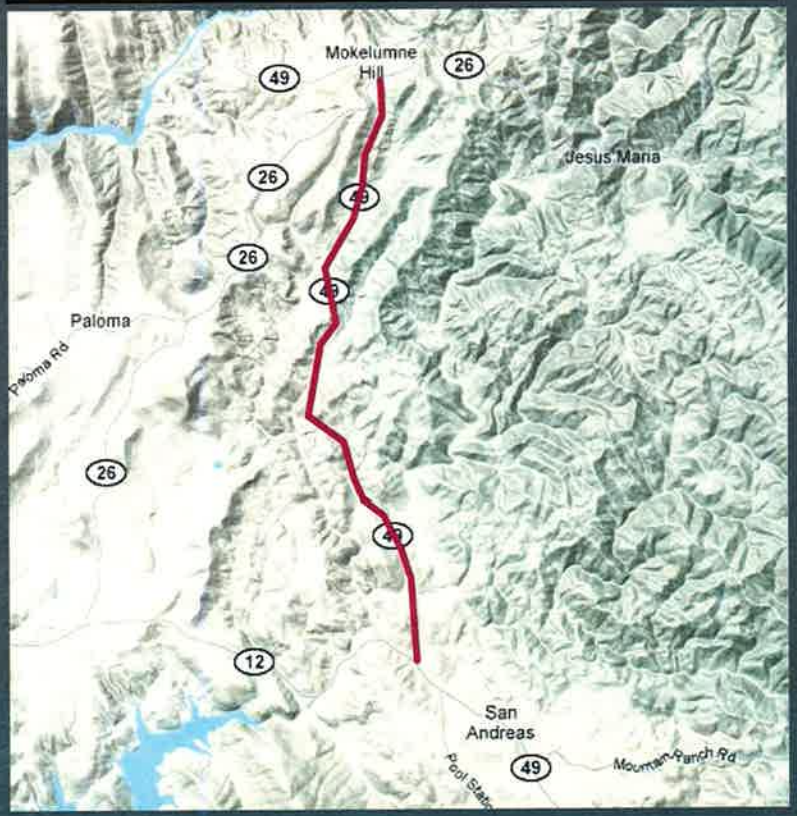
RTP Tier II - Sidewalks on SR-49 in San Andreas near San Joaquin St.

RTP Tier II — Class III Bikeway Rural Road and Signage Only Improvements - 3.7 miles

PLANNED LAND USES

Segment 7
Junction SR-12 to Junction SR-26

2007 AADT	2030 AADT
4,940	9,100
LOS C	LOS D



CONCEPT FACILITY

2 Lane Conventional Highway

ULTIMATE TRANSPORTATION CONCEPT

4 Lane Highway

PLANNED IMPROVEMENTS

Long Term

RTP Tier II – Class II Bikeways

Pool Station Rd. in San Andreas to SR-26 – 7.26 miles.

Segment 8
SR-26 to Calaveras County/Amador County Line

2007 AADT	2030 AADT
6,415	11,480
LOS C	LOS D

CONCEPT FACILITY

2 Lane Conventional Highway

ULTIMATE TRANSPORTATION CONCEPT

4 Lane Highway

PLANNED IMPROVEMENTS

Long Term

RTP Tier II - Two additional passing/ climbing lanes in each direction on SR-49 between SR-26 and Amador County Line

91-04-0015	MORRIS RAVINE MINE	MINERAL RESOURCES, LLC	BUTTE - COUNTY
91-04-0018	ALMOND AVENUE MINE	GRANITE CONSTRUCTION COMPANY	BUTTE - COUNTY
91-04-0019	DUNSTONE ROCK QUARRY	BOB HAMMETT	BUTTE - COUNTY
91-04-0021	PERMIT # 92-43 VANCE AVENUE, PIT #2	MATHEWS READYMIX, INC.	BUTTE - COUNTY
91-04-0022	RON HARMON MINE	RON HARMON	OROVILLE - CITY
91-04-0025	PINE CREEK	ANDERSON BROTHERS CORPORATION	BUTTE - COUNTY
91-04-0030	LITTLE CHICO CREEK	FRANKLIN CONSTRUCTION COMPANY, INC.	BUTTE - COUNTY
91-05-0001	SNYDER CLAY PIT	SNYDER CLAY PIT	CALAVERAS - COUNTY
91-05-0005	JOHN HERTZIG SAND & GRAVEL	JOHN W. HERTZIG	CALAVERAS - COUNTY
91-05-0006	ROBIE RANCH GRAVEL	7/11 MATERIALS, INC.	CALAVERAS - COUNTY
91-05-0008	VALLEY SPRINGS CLAY PIT	VALLEY SPRINGS CLAY PIT, LLC	CALAVERAS - COUNTY
91-05-0009	GNM #6 SHALE QUARRY	LEHIGH SOUTHWEST CEMENT COMPANY	CALAVERAS - COUNTY
91-05-0010	QUARRY # 7	LEHIGH SOUTHWEST CEMENT COMPANY	CALAVERAS - COUNTY
91-05-0012	CATARACT LIMESTONE QUARRY	LEHIGH SOUTHWEST CEMENT COMPANY	CALAVERAS - COUNTY
91-05-0013	WOLIN & SONS AGGREGATE	CHARLES LARSON CONSTRUCTION	CALAVERAS - COUNTY
91-05-0014	HOGAN QUARRY	FORD CONSTRUCTION COMPANY, INC.	CALAVERAS - COUNTY
91-05-0016	MCCARTY PIT	FORD CONSTRUCTION COMPANY, INC	CALAVERAS - COUNTY
91-05-0018	CARSON HILL ROCK PRODUCTS	CARSON HILL ROCK PRODUCTS	CALAVERAS - COUNTY
91-06-0009	GOULD ROAD QUARRY	CJ ENTERPRISE	COLUSA - COUNTY
91-06-0010	O'SULLIVAN RANCH PIT	CLEARLAKE REDI-MIX, INC.	COLUSA - COUNTY
91-06-0015	LOVELADY RANCH, LLC & LITTLE STONEY, LLC MINE	LOVELADY RANCH, LLC & LITTLE STONY, LLC	COLUSA - COUNTY
91-07-0001	BYRON PLANT	UNIMIN CORPORATION	CONTRA COSTA - COUNTY
91-07-0003	CLAYTON QUARRY	HANSON AGGREGATES	CONTRA COSTA - COUNTY
91-07-0004	CLAYTON	CEMEX CONSTRUCTION MATERIALS PACIFIC,LLC	CONTRA COSTA - COUNTY
91-07-0006	RICHMOND QUARRY	DUTRA MATERIALS	SMGB - STATE
91-07-0012	BYRON PLANT--KELLOGG	UNIMIN CORPORATION	CONTRA COSTA - COUNTY
91-07-0017	SAND HILL RANCH -- PHASE II	F.T.G. CONSTRUCTION MATERIALS, INC.	CONTRA COSTA - COUNTY
91-08-0001	SULTAN BAR	GRANITE CONSTRUCTION COMPANY	DEL NORTE - COUNTY
91-08-0002	HUFFMAN BAR	TIDEWATER CONTRACTORS, INC.	DEL NORTE - COUNTY
91-08-0005	CROCKETT BAR	TIDEWATER CONTRACTORS, INC.	DEL NORTE - COUNTY
91-08-0006	HOLE PIT	HW3, LLC	DEL NORTE - COUNTY
91-08-0008	STARY QUARRY	TIDEWATER CONTRACTORS, INC.	DEL NORTE - COUNTY
91-08-0010	LOPEZ ROCK QUARRY	HW3, LLC	DEL NORTE - COUNTY
91-08-0014	SCHEVE ROCK PIT	TIDEWATER CONTRACTORS, INC.	DEL NORTE - COUNTY

Appendix 2B
Traffic Volumes on Calaveras State Highways

2008 Traffic Volumes on State Highways
Calaveras County

Route	County	Postmile	Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT
4	CAL	0.000	STANISLAUS/CALAVERAS COUNTY LINE				640	5400	4800
4	CAL	7.323	HODSON ROAD/REEDS TURNPIKE	680	5800	5300	550	5300	4950
4	CAL	8.143	O' BYRNES FERRY ROAD	600	5800	5300	650	6400	5900
4	CAL	21.090	ANGELS CAMP, WEST JCT. RTE. 49	650	6400	5900			
4	CAL		BREAK IN ROUTE						
4	CAL	21.380	ANGELS CAMP, EAST JCT. RTE. 49				510	7000	5800
4	CAL	22.230	ROLLERI BYPASS ROAD	530	6100	5600	590	6400	5800
4	CAL	26.220	VALLECITO	450	5600	5100	700	7900	6700
4	CAL	29.620	BIG TREES/TOMBELL ROADS	960	9800	9000	960	9800	9000
4	CAL	37.350	AVERY, MORAN ROAD WEST JUNCTION	1000	10900	9900	970	9900	8900
4	CAL	41.520	WHITE PINES ROAD	1200	12300	11000	930	8500	7600
4	CAL	42.620	MORAN ROAD EAST JUNCTION	900	7600	6800	690	4500	3650
4	CAL	44.497	BIG TREES STATE PARK	690	4500	3650	680	3900	3450
4	CAL	47.140	DORRINGTON	800	4450	3650	470	2700	2200
4	CAL	49.570	MEKO DRIVE	360	2500	1850	380	2600	1950
4	CAL	62.840	BIG MEADOWS	390	2400	1750	380	2100	1650
4	CAL	65.865	CALAVERAS/ALPINE COUNTY LINE	290	1650	1250			
12	CAL	0.000	SAN JOAQUIN/CALAVERAS COUNTY LINE				730	7400	6900
12	CAL	0.630	WALLIS, COMANCHE PARKWAY	730	7400	6900	660	6800	6300
12	CAL	6.300	BURSON, BURSON ROAD	600	6400	5800	940	9600	8400
12	CAL	9.780	VALLEY SPRINGS, PINE STREET	950	9500	8300	1000	9900	8600
12	CAL	9.927	VALLEY SPRINGS, JCT. RTE. 26 SOUTH	1000	9900	8600	790	7700	6800
12	CAL	10.400	WEST JUNCTION LIME CREEK ROAD	790	7700	6800	770	7000	6800
12	CAL	13.872	TOYON, JCT. RTE. 26 NORTH	860	9100	7600	950	9200	7400
12	CAL	18.201	SAN ANDREAS, JCT. RTE. 49	1000					

2008 Traffic Volumes on State Highways
Calaveras County

26	CAL	0.000	SAN JOAQUIN/CALAVERAS COUNTY LINE				530	5500	4950
26	CAL	1.880	GREGORY MILTON ROAD	590	6100	5600	580	6100	5600
26	CAL	4.379	JENNY LIND ROAD	440	4450	4300	500	5300	4900
26	CAL	7.620	SILVER RAPIDS RD	690	7400	6800	720	8500	7600
26	CAL	8.530	LA CONTENTA COUNTRY CLUB ENTRANCE	960	11000	10000	1200	12000	11000
26	CAL	9.859	HOGAN DAM ROAD	1150	11800	10500	1100	12600	11100
26	CAL	10.435	VALLEY SPRINGS, JCT. RTE. 12	1150	12600	11300	170	1950	1800
26	CAL	14.280	PALOMA RD LT	170	1950	1800	180	2400	2200
26	CAL	18.069	MOKELUMNE HILL, JCT. RTE. 49	170	2250	2050	280	2300	2150
26	CAL	26.797	RIDGE ROAD	130	1400	1300	130	1650	1550
26	CAL	32.650	GLENCO, ASSOCIATED OFFICE ROAD	160	1800	1650	80	770	720
26	CAL	33.564	RAILROAD FLAT ROAD	80	770	720	210	2100	1700
26	CAL	34.770	WINTON ROAD	230	2450	1950	220	2400	1950
26	CAL	34.885	MAIN ST	210	2200	1750	230	2600	2100
26	CAL	38.325	CALAVERASL/AMADOR COUNTY LINE						
49	CAL	0.000	TUOLUMNE/CALAVERAS COUNTY LINE				570	6000	5600
49	CAL	6.660	ANGELS CAMP, CENTENNIAL RD	530	6800	5600	700	9000	7700
49	CAL	7.210	ANGELS CAMP, SOUTH JCT. RTE. 4	840	10400	9100	1450	15300	14500
49	CAL	8.330	MURPHYS GRADE ROAD	1500	16300	15500	1650	16000	14800
49	CAL	8.667	NORTH JCT. RTE. 4	1350	12500	11000	1050	9800	8700
49	CAL	9.420	NORTH ANGELS CAMP, COPELLO DRIVE	880	8300	7400	720	7500	6600
49	CAL	14.200	FRICOT ROAD	730	7000	6100	700	6900	6500
49	CAL	18.794	MOUNTAIN RANCH ROAD	780	7700	7300	1000	11000	10500
49	CAL	19.412	SAN ANDREAS, MAIN STREET	1150	12200	11600	1050	11400	10800
49	CAL	20.496	JCT. RTE. 12 WEST	880	9500	9000	470	4600	4300
49	CAL	22.210	GOLD STRIKE ROAD	470	4600	4300	530	5300	4900
49	CAL	27.614	MOKELUMNE HILL, JCT. RTE. 26	440	4400	4100	650	6600	6100
49	CAL	28.060	CAMPO SECO RD/STOCKTON HILL RD	560	5900	5600	560	5900	5600

2009 Traffic Volumes on State Highways

Route	County	Postmile	Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT
004	CAL	0	STANISLAUS/CALAVERAS COUNTY LINE				640	5,400	4,800
004	CAL	7.323	HODSON RD/REEDS TURNPIKE	680	5,800	5,300	550	5,300	4,950
004	CAL	8.143	O' BYRNES FERRY RD	600	5,800	5,300	650	6,400	5,900
004	CAL	21.38	ANGELS CAMP, JCT. RTE. 49	650	6,400	5,900	510	7,000	5,800
004	CAL	22.23	ROLLERI BYPASS RD	530	6,100	5,600	590	6,400	5,800
004	CAL	26.22	VALLECITO	450	5,600	5,100	700	7,900	6,700
004	CAL	29.62	BIG TREES/TOMBELL RDS	960	9,800	9,000	960	9,800	9,000
004	CAL	37.35	AVERY, MORAN RD WEST JUNCTION	1,000	10,900	9,900	970	9,900	8,900
004	CAL	41.52	WHITE PINES RD	1,200	12,300	11,000	930	8,500	7,600
004	CAL	42.62	MORAN RD EAST JUNCTION	900	7,600	6,800	690	4,500	3,650
004	CAL	44.497	BIG TREES STATE PARK	690	4,500	3,650	680	3,900	2,900
004	CAL	47.14	DORRINGTON	800	4,450	3,100	470	2,500	1,850
004	CAL	49.57	MEKO DR	360	2,500	1,550	380	2,600	1,650
004	CAL	62.84	BIG MEADOWS	450	1,950	1,200	380	2,100	1,150
004	CAL	65.865	CALAVERAS/ALPINE COUNTY LINE	290	1,650	1,300			
012	CAL	0	SAN JOAQUIN/CALAVERAS COUNTY LINE				730	7,400	6,900
012	CAL	0.63	WALLIS, COMANCHE PARKWAY	730	7,400	6,900	660	6,800	6,300
012	CAL	6.3	BURSON, BURSON RD	600	6,400	5,800	940	9,600	8,400
012	CAL	9.78	VALLEY SPRINGS, PINE ST	950	9,500	8,300	1,000	9,900	8,600
012	CAL	9.927	VALLEY SPRINGS, JCT. RTE. 26 SOUTH	1,000	9,900	8,600	790	7,700	6,800
012	CAL	10.4	WEST JUNCTION LIME CREEK RD	790	7,700	6,800	770	7,000	6,800
012	CAL	13.872	TOYON, JCT. RTE. 26 NORTH	860	9,100	7,600	950	9,200	7,400
012	CAL	18.201	SAN ANDREAS, JCT. RTE. 49	1,000	9,700	7,600			

2009 Traffic Volumes on State Highways

026	CAL	0	SAN JOAQUIN/CALAVERAS COUNTY LINE				530	5,500	4,700
026	CAL	1.88	GREGORY MILTON RD	590	6,100	5,400	590	6,100	5,400
026	CAL	4.379	JENNY LIND RD	440	4,450	4,100	500	5,300	4,700
026	CAL	7.62	SILVER RAPIDS RD	690	7,800	6,500	720	8,500	7,300
026	CAL	8.53	LA CONTENTA COUNTRY CLUB ENTRANCE	960	11,000	9,600	1,200	12,100	11,000
026	CAL	9.859	HOGAN DAM RD	1,150	11,800	10,000	1,100	12,600	11,000
026	CAL	10.302	VALLEY SPRINGS, JCT. RTE. 12	1,100	12,600	11,000	170	1,950	1,700
026	CAL	14.28	PALOMA RD LT	170	1,950	1,700	180	2,400	2,100
026	CAL	18.069	MOKELUMNE HILL, JCT. RTE. 49	170	2,250	2,000	280	2,300	2,100
026	CAL	26.797	RIDGE RD	130	1,400	1,200	130	1,650	1,500
026	CAL	32.65	GLENCO, ASSOCIATED OFFICE RD	160	1,800	1,600	80	770	700
026	CAL	33.564	RAILRD FLAT RD	80	770	700	210	2,100	1,700
026	CAL	34.77	WINTON RD	230	2,450	1,950	220	2,400	1,950
026	CAL	34.885	MAIN ST	210	2,200	1,750	230	2,600	2,100
026	CAL	38.325	CALAVERASL/AMADOR COUNTY LINE	200					
049	CAL	0	TUOLUMNE/CALAVERAS COUNTY LINE				570	7,100	5,600
049	CAL	6.66	ANGELS CAMP, CENTENNIAL RD	530	7,100	5,600	700	9,000	7,700
049	CAL	7.21	ANGELS CAMP, SOUTH JCT. RTE. 4	840	10,400	9,100	1,450	15,300	14,500
049	CAL	8.33	MURPHYS GRADE RD	1,500	16,300	15,500	1,850	19,800	17,700
049	CAL	8.667	NORTH JCT. RTE. 4	1,350	12,500	11,000	1,050	9,800	8,700
049	CAL	9.42	NORTH ANGELS CAMP, COPELLO DR	880	8,300	7,400	720	7,500	6,600
049	CAL	14.2	FRICOT RD	730	7,000	6,100	700	6,900	6,500
049	CAL	18.794	MOUNTAIN RANCH RD	780	7,700	7,300	1,000	11,000	10,500
049	CAL	19.412	SAN ANDREAS, MAIN ST	1,150	12,200	11,600	1,050	11,400	10,800
049	CAL	20.496	JCT. RTE. 12 WEST	880	9,500	9,000	470	4,600	4,300
049	CAL	22.21	GOLD STRIKE RD	470	4,600	4,300	530	5,300	4,900
049	CAL	27.614	MOKELUMNE HILL, JCT. RTE. 26	440	4,400	4,100	650	6,600	6,100
049	CAL	28.06	CAMPO SECO RD/STOCKTON HILL RD	560	5,900	5,600	560	5,900	5,600
049	CAL	30.865	CALAVERAS/AMADOR COUNTY LINE	570	6,200	5,900			

2010 Traffic Volumes on State Highways
Calaveras County

Route	CO	Mile Post	Description	Back Peak Hour	Back Peak Month	Back AADT	Ahead Peak Hour	Ahead Peak Month	Ahead AADT
4	CAL	0	STANISLAUS/CALAVERAS CO LN				640	5,400	4,350
4	CAL	7.323	HODSON /REEDS TURNPIKE	680	5,800	4,800	550	5,300	4,500
4	CAL	8.143	O' BYRNES FERRY RD	600	5,800	4,800	650	6,400	5,900
4	CAL	21.09	ANGELS CAMP, JCT. RTE. 49	650	6,400	5,900	510	7,000	5,800
4	CAL	22.23	ROLLERI BYPASS RD	530	6,100	5,600	590	6,400	5,900
4	CAL	26.22	VALLECITO	450	5,600	5,200	700	7,900	6,200
4	CAL	29.62	BIG TREES /TOMBELL RDS	960	9,800	8,100	960	9,800	8,750
4	CAL	37.35	AVERY, MORAN RD WEST	1,000	10,900	9,600	970	9,900	8,600
4	CAL	41.52	WHITE PINES RD	1,200	12,300	10,700	930	8,500	7,400
4	CAL	42.62	MORAN RD EAST	900	7,600	6,600	690	4,500	3,550
4	CAL	44.497	BIG TREES STATE PARK	690	4,500	3,550	680	3,900	2,800
4	CAL	47.14	DORRINGTON	800	4,450	3,000	470	2,500	1,800
4	CAL	49.57	MEKO DRIVE	360	2,500	1,500	380	2,600	1,600
4	CAL	62.84	BIG MEADOWS	450	1,950	1,150	380	2,100	1,100
4	CAL	65.865	CALAVERAS/ALPINE CO LINE	290	1,650	1,250			
12	CAL	0	S JOAQUIN/CALAVERAS CO LINE				730	7,400	6,800
12	CAL	0.63	WALLIS, COMANCHE PARKWAY	730	7,400	6,800	660	6,800	6,200
12	CAL	6.3	BURSON, BURSON RD	600	6,400	5,350	940	9,600	7,800
12	CAL	9.78	VALLEY SPRINGS, PINE ST	950	9,500	8,300	1,000	9,900	8,600
12	CAL	9.927	VALLEY SPRINGS, JCT RTE 26 S	1,000	9,900	8,600	790	7,700	6,800
12	CAL	10.4	WEST JUNCTION LIME CREEK	790	7,700	8,000	770	7,000	7,400
12	CAL	13.872	TOYON, JCT. RTE. 26 NORTH	860	9,100	7,000	950	9,200	7,400
12	CAL	18.201	SAN ANDREAS, JCT. RTE. 49	1,000	9,700	7,600			

2010 Traffic Volumes on State Highways
Calaveras County

26	CAL	0	SAN JOAQUIN/CALAVERAS CO LINE				530	5,500	4,400
26	CAL	1.88	GREGORY MILTON RD	590	6,100	4,850	590	6,100	4,850
26	CAL	4.379	JENNY LIND RD	440	4,450	4,000	500	5,300	5,400
26	CAL	7.62	SILVER RAPIDS RD	690	7,800	7,350	720	8,500	8,400
26	CAL	8.53	LA CONTENTA COUNTRY CLUB	1,050	12,100	10,600	1,200	12,100	11,500
26	CAL	9.859	HOGAN DAM RD	1,150	11,800	10,000	1,100	12,600	11,000
26	CAL	10.435	VALLEY SPRINGS, JCT. RTE. 12	1,100	12,600	11,000	170	1,950	1,850
26	CAL	14.28	PALOMA RD LT	170	1,950	1,850	180	2,400	1,950
26	CAL	18.069	MOKELUMNE HILL, JCT. RTE. 49	170	2,250	1,900	280	2,300	2,100
26	CAL	26.797	RIDGE RD	130	1,400	1,200	130	1,650	1,350
26	CAL	32.65	GLENCO, ASSOCIATED OFFICE	160	1,800	1,450	80	770	700
26	CAL	33.564	RAILRD FLAT RD	80	770	700	210	2,100	1,700
26	CAL	34.77	WINTON RD	230	2,450	1,750	220	2,400	1,950
26	CAL	34.885	MAIN ST	210	2,200	2,000	230	2,600	2,000
26	CAL	38.325	CALAVERASL/AMADOR CO LINE	200	2,150	1,750			
49	CAL	0	TUOLUMNE/CALAVERAS CO LINE				570	7,100	5,600
49	CAL	6.66	ANGELS CAMP, CENTENNIAL RD	530	7,100	5,600	700	9,000	7,700
49	CAL	7.21	ANGELS CAMP, S. JCT. RTE. 4	840	10,400	9,100	1,450	15,300	14,500
49	CAL	8.33	MURPHYS GRADE RD	1,500	16,300	15,500	1,850	19,800	17,700
49	CAL	8.667	NORTH JCT. RTE. 4	1,350	12,500	11,000	1,050	9,800	8,700
49	CAL	9.42	N. ANGELS CAMP, COPELLO	880	8,300	7,400	720	7,500	6,600
49	CAL	14.2	FRICOT RD	730	7,000	6,100	700	6,900	6,500
49	CAL	18.794	MOUNTAIN RANCH RD	780	7,700	7,300	1,000	11,000	10,500
49	CAL	19.412	SAN ANDREAS, MAIN ST	1,150	12,200	11,600	1,050	11,400	10,800
49	CAL	20.496	JCT. RTE. 12 WEST	880	9,500	9,000	470	4,600	4,300
49	CAL	22.21	GOLD STRIKE RD	470	4,600	4,300	530	5,300	4,900
49	CAL	27.614	MOKELUMNE HILL, JCT. RTE. 26	440	4,400	4,100	650	6,600	6,100
49	CAL	28.06	CAMPO SECO /STOCKTON HILL	560	5,900	5,600	560	5,900	5,600
49	CAL	30.865	CALAVERAS/AMADOR CO LINE	570	6,200	5,900			

Appendix 2C
HCM 2010 and Florida High Plan Technical Calculations for Capacity Thresholds

HCS 2010: Two-Lane Highways Release 6.2

Directional Two-Lane Highway Segment Analysis

Analyst	DS
Agency/Co.	Fehr & Peers
Date Performed	2/21/2012
Analysis Time Period	PM Peak Hour
Highway	Major Highway - LOS C
From/To	
Jurisdiction	Calaveras County
Analysis Year	2010
Description RTP Update 2012	

Input Data

Highway class Class 2			Peak hour factor, PHF	0.88	
Shoulder width	2.0	ft	% Trucks and buses	10	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	1.0	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Level		% Recreational vehicles	5	%
Grade: Length	-	mi	% No-passing zones	80	%
Up/down	-	%	Access point density	10	/mi

Analysis direction volume, Vd 350 veh/h
Opposing direction volume, Vo 150 veh/h

Average Travel Speed

Direction	Analysis (d)		Opposing (o)	
PCE for trucks, ET	1.3		1.6	
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adj. factor, (note-5) fHV	0.971		0.943	
Grade adj. factor, (note-1) fg	1.00		1.00	
Directional flow rate, (note-2) vi	410	pc/h	181	pc/h

Free-Flow Speed from Field Measurement:		
Field measured speed, (note-3) S FM	-	mi/h
Observed total demand, (note-3) V	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, (note-3) BFFS	45.0	mi/h
Adj. for lane and shoulder width, (note-3) fLS	2.6	mi/h
Adj. for access point density, (note-3) fA	2.5	mi/h
Free-flow speed, FFSd	39.9	mi/h
Adjustment for no-passing zones, fnp	3.5	mi/h
Average travel speed, ATSd	31.8	mi/h
Percent Free Flow Speed, PFFS	79.7	%

Percent Time-Spent-Following

Direction	Analysis (d)		Opposing (o)	
PCE for trucks, ET	1.1		1.1	
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adjustment factor, fHV	0.990		0.990	
Grade adjustment factor, (note-1) fg	1.00		1.00	
Directional flow rate, (note-2) vi	402	pc/h	172	pc/h
Base percent time-spent-following, (note-4) BPTSFd	38.0	%		
Adjustment for no-passing zones, fnp	45.7			
Percent time-spent-following, PTSFd	70.0	%		

Level of Service and Other Performance Measures

Level of service, LOS	C	
Volume to capacity ratio, v/c	0.24	
Peak 15-min vehicle-miles of travel, VMT15	99	veh-mi
Peak-hour vehicle-miles of travel, VMT60	350	veh-mi
Peak 15-min total travel time, TT15	3.1	veh-h
Capacity from ATS, CdATS	0	veh/h
Capacity from PTSF, CdPTSF	1683	veh/h
Directional Capacity	2403	veh/h

HCS 2010: Two-Lane Highways Release 6.2

Directional Two-Lane Highway Segment Analysis

Analyst	DS
Agency/Co.	Fehr & Peers
Date Performed	2/21/2012
Analysis Time Period	PM Peak Hour
Highway	Major Highway - LOS D
From/To	
Jurisdiction	Calaveras County
Analysis Year	2010
Description RTP Update 2012	

Input Data

Highway class Class 2			Peak hour factor, PHF	0.88	
Shoulder width	2.0	ft	% Trucks and buses	10	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	1.0	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Rolling		% Recreational vehicles	5	%
Grade: Length	-	mi	% No-passing zones	80	%
Up/down	-	%	Access point density	10	/mi

Analysis direction volume, Vd	767	veh/h
Opposing direction volume, Vo	329	veh/h

Average Travel Speed

Direction	Analysis(d)		Opposing (o)	
PCE for trucks, ET	1.3		2.0	
PCE for RVs, ER	1.1		1.1	
Heavy-vehicle adj. factor,(note-5) fHV	0.966		0.905	
Grade adj. factor,(note-1) fg	1.00		0.88	
Directional flow rate,(note-2) vi	902	pc/h	469	pc/h

Free-Flow Speed from Field Measurement:		
Field measured speed,(note-3) S FM	-	mi/h
Observed total demand,(note-3) V	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed,(note-3) BFFS	55.0	mi/h
Adj. for lane and shoulder width,(note-3) fLS	2.6	mi/h
Adj. for access point density,(note-3) fA	2.5	mi/h
Free-flow speed, FFSd	49.9	mi/h
Adjustment for no-passing zones, fnp	2.3	mi/h
Average travel speed, ATSd	37.0	mi/h
Percent Free Flow Speed, PFFS	74.1	%

Percent Time-Spent-Following

Direction	Analysis(d)		Opposing (o)	
PCE for trucks, ET	1.0		1.6	
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adjustment factor, fHV	1.000		0.943	
Grade adjustment factor,(note-1) fg	1.00		0.89	
Directional flow rate,(note-2) vi	872	pc/h	445	pc/h
Base percent time-spent-following,(note-4) BPTSFd	68.2	%		
Adjustment for no-passing zones, fnp	23.4			
Percent time-spent-following, PTSFd	83.7	%		

Level of Service and Other Performance Measures

Level of service, LOS	D	
Volume to capacity ratio, v/c	0.57	
Peak 15-min vehicle-miles of travel, VMT15	218	veh-mi
Peak-hour vehicle-miles of travel, VMT60	767	veh-mi
Peak 15-min total travel time, TT15	5.9	veh-h
Capacity from ATS, CdATS	0	veh/h
Capacity from PTSF, CdPTSF	1520	veh/h
Directional Capacity	2295	veh/h

HCS 2010: Two-Lane Highways Release 6.2

Directional Two-Lane Highway Segment Analysis

Analyst	DS
Agency/Co.	Fehr & Peers
Date Performed	2/21/2012
Analysis Time Period	PM Peak Hour
Highway	Major Highway - LOS E
From/To	
Jurisdiction	Calaveras County
Analysis Year	2010
Description RTP Update	2012

Input Data

Highway class	Class 2		Peak hour factor, PHF	0.88	
Shoulder width	2.0	ft	% Trucks and buses	10	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	1.0	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Rolling		% Recreational vehicles	5	%
Grade: Length	-	mi	% No-passing zones	80	%
Up/down	-	%	Access point density	10	/mi

Analysis direction volume, Vd	1442	veh/h
Opposing direction volume, Vo	618	veh/h

Average Travel Speed

Direction	Analysis (d)		Opposing (o)	
PCE for trucks, ET	1.3		1.6	
PCE for RVs, ER	1.1		1.1	
Heavy-vehicle adj. factor, (note-5) fHV	0.966		0.939	
Grade adj. factor, (note-1) fg	1.00		0.98	
Directional flow rate, (note-2) vi	1696	pc/h	763	pc/h

Free-Flow Speed from Field Measurement:		
Field measured speed, (note-3) S FM	-	mi/h
Observed total demand, (note-3) V	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, (note-3) BFFS	55.0	mi/h
Adj. for lane and shoulder width, (note-3) fLS	2.6	mi/h
Adj. for access point density, (note-3) fA	2.5	mi/h
Free-flow speed, FFSd	49.9	mi/h
Adjustment for no-passing zones, fnp	1.3	mi/h
Average travel speed, ATSd	29.5	mi/h
Percent Free Flow Speed, PFFS	59.2	%

Percent Time-Spent-Following

Direction	Analysis (d)		Opposing (o)	
PCE for trucks, ET	1.0		1.0	
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adjustment factor, fHV	1.000		1.000	
Grade adjustment factor, (note-1) fg	1.00		0.99	
Directional flow rate, (note-2) vi	1639	pc/h	709	pc/h
Base percent time-spent-following, (note-4) BPTSFd	88.5	%		
Adjustment for no-passing zones, fnp	14.0			
Percent time-spent-following, PTSFd	98.3	%		

Level of Service and Other Performance Measures

Level of service, LOS	E	
Volume to capacity ratio, v/c	0.97	
Peak 15-min vehicle-miles of travel, VMT15	410	veh-mi
Peak-hour vehicle-miles of travel, VMT60	1442	veh-mi
Peak 15-min total travel time, TT15	13.9	veh-h
Capacity from ATS, CdATS	0	veh/h
Capacity from PTSF, CdPTSF	1683	veh/h
Directional Capacity	2411	veh/h

HCS 2010: Two-Lane Highways Release 6.2

Directional Two-Lane Highway Segment Analysis

Analyst	DS
Agency/Co.	Fehr & Peers
Date Performed	2/21/2012
Analysis Time Period	PM Peak Hour
Highway	Minor Highway - LOS C
From/To	
Jurisdiction	Calaveras County
Analysis Year	2010
Description	RTP Update 2012

Input Data

Highway class	Class 2		Peak hour factor, PHF	0.88	
Shoulder width	0.0	ft	% Trucks and buses	5	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	1.0	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Level		% Recreational vehicles	2	%
Grade: Length	-	mi	% No-passing zones	95	%
Up/down	-	%	Access point density	20	/mi

Analysis direction volume, Vd	334	veh/h
Opposing direction volume, Vo	111	veh/h

Average Travel Speed

Direction	Analysis (d)		Opposing (o)	
PCE for trucks, ET	1.3		1.8	
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adj. factor, (note-5) fHV	0.985		0.962	
Grade adj. factor, (note-1) fg	1.00		1.00	
Directional flow rate, (note-2) vi	385	pc/h	131	pc/h

Free-Flow Speed from Field Measurement:		
Field measured speed, (note-3) S FM	-	mi/h
Observed total demand, (note-3) V	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, (note-3) BFFS	45.0	mi/h
Adj. for lane and shoulder width, (note-3) fLS	4.2	mi/h
Adj. for access point density, (note-3) fA	5.0	mi/h
Free-flow speed, FFSd	35.8	mi/h
Adjustment for no-passing zones, fnp	2.8	mi/h
Average travel speed, ATSd	28.9	mi/h
Percent Free Flow Speed, PFFS	80.9	%

Percent Time-Spent-Following

Direction	Analysis (d)		Opposing (o)	
PCE for trucks, ET	1.1		1.1	
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adjustment factor, fHV	0.995		0.995	
Grade adjustment factor, (note-1) fg	1.00		1.00	
Directional flow rate, (note-2) vi	381	pc/h	127	pc/h
Base percent time-spent-following, (note-4) BPTSFd	36.5	%		
Adjustment for no-passing zones, fnp	44.6			
Percent time-spent-following, PTSFd	69.9	%		

Level of Service and Other Performance Measures

Level of service, LOS	C	
Volume to capacity ratio, v/c	0.23	
Peak 15-min vehicle-miles of travel, VMT15	95	veh-mi
Peak-hour vehicle-miles of travel, VMT60	334	veh-mi
Peak 15-min total travel time, TT15	3.3	veh-h
Capacity from ATS, CdATS	0	veh/h
Capacity from PTSF, CdPTSF	1692	veh/h
Directional Capacity	2255	veh/h

HCS 2010: Two-Lane Highways Release 6.2

Directional Two-Lane Highway Segment Analysis

Analyst	DS
Agency/Co.	Fehr & Peers
Date Performed	2/21/2012
Analysis Time Period	PM Peak Hour
Highway	Minor Highway - LOS D
From/To	
Jurisdiction	Calaveras County
Analysis Year	2010
Description	RTP Update 2012

Input Data

Highway class	Class 2		Peak hour factor, PHF	0.88	
Shoulder width	0.0	ft	% Trucks and buses	5	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	1.0	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Level		% Recreational vehicles	2	%
Grade: Length	-	mi	% No-passing zones	90	%
Up/down	-	%	Access point density	20	/mi

Analysis direction volume, Vd	743	veh/h
Opposing direction volume, Vo	248	veh/h

Average Travel Speed

Direction	Analysis (d)		Opposing (o)	
PCE for trucks, ET	1.1		1.4	
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adj. factor, (note-5) fHV	0.995		0.980	
Grade adj. factor, (note-1) fg	1.00		1.00	
Directional flow rate, (note-2) vi	849	pc/h	288	pc/h

Free-Flow Speed from Field Measurement:		
Field measured speed, (note-3) S FM	-	mi/h
Observed total demand, (note-3) V	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, (note-3) BFFS	45.0	mi/h
Adj. for lane and shoulder width, (note-3) fLS	4.2	mi/h
Adj. for access point density, (note-3) fA	5.0	mi/h
Free-flow speed, FFSd	35.8	mi/h
Adjustment for no-passing zones, fnp	3.3	mi/h
Average travel speed, ATSd	23.6	mi/h
Percent Free Flow Speed, PFFS	66.1	%

Percent Time-Spent-Following

Direction	Analysis (d)		Opposing (o)	
PCE for trucks, ET	1.0		1.1	
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adjustment factor, fHV	1.000		0.995	
Grade adjustment factor, (note-1) fg	1.00		1.00	
Directional flow rate, (note-2) vi	844	pc/h	283	pc/h
Base percent time-spent-following, (note-4) BPTSFd	64.6	%		
Adjustment for no-passing zones, fnp	27.3			
Percent time-spent-following, PTSFd	85.0	%		

Level of Service and Other Performance Measures

Level of service, LOS	D	
Volume to capacity ratio, v/c	0.50	
Peak 15-min vehicle-miles of travel, VMT15	211	veh-mi
Peak-hour vehicle-miles of travel, VMT60	743	veh-mi
Peak 15-min total travel time, TT15	8.9	veh-h
Capacity from ATS, CdATS	0	veh/h
Capacity from PTSF, CdPTSF	1692	veh/h
Directional Capacity	2258	veh/h

HCS 2010: Two-Lane Highways Release 6.2

Directional Two-Lane Highway Segment Analysis

Analyst	DS
Agency/Co.	Fehr & Peers
Date Performed	2/21/2012
Analysis Time Period	PM Peak Hour
Highway	Minor Highway - LOS E
From/To	
Jurisdiction	Calaveras County
Analysis Year	2010
Description RTP Update 2012	

Input Data

Highway class	Class 2		Peak hour factor, PHF	0.88	
Shoulder width	0.0	ft	% Trucks and buses	5	%
Lane width	12.0	ft	% Trucks crawling	0.0	%
Segment length	1.0	mi	Truck crawl speed	0.0	mi/hr
Terrain type	Level		% Recreational vehicles	2	%
Grade: Length	-	mi	% No-passing zones	90	%
Up/down	-	%	Access point density	20	/mi

Analysis direction volume, Vd 1493 veh/h
Opposing direction volume, Vo 498 veh/h

Average Travel Speed

Direction	Analysis (d)		Opposing (o)	
PCE for trucks, ET	1.0		1.1	
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adj. factor, (note-5) fHV	1.000		0.995	
Grade adj. factor, (note-1) fg	1.00		1.00	
Directional flow rate, (note-2) vi	1697	pc/h	569	pc/h

Free-Flow Speed from Field Measurement:		
Field measured speed, (note-3) S FM	-	mi/h
Observed total demand, (note-3) V	-	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, (note-3) BFFS	45.0	mi/h
Adj. for lane and shoulder width, (note-3) fLS	4.2	mi/h
Adj. for access point density, (note-3) fA	5.0	mi/h
Free-flow speed, FFSd	35.8	mi/h
Adjustment for no-passing zones, fnp	1.9	mi/h
Average travel speed, ATSd	16.3	mi/h
Percent Free Flow Speed, PFFS	45.6	%

Percent Time-Spent-Following

Direction	Analysis (d)		Opposing (o)	
PCE for trucks, ET	1.0		1.0	
PCE for RVs, ER	1.0		1.0	
Heavy-vehicle adjustment factor, fHV	1.000		1.000	
Grade adjustment factor, (note-1) fg	1.00		1.00	
Directional flow rate, (note-2) vi	1697	pc/h	566	pc/h
Base percent time-spent-following, (note-4) BPTSFd	88.2	%		
Adjustment for no-passing zones, fnp	12.4			
Percent time-spent-following, PTSFd	97.5	%		

Level of Service and Other Performance Measures

Level of service, LOS	E	
Volume to capacity ratio, v/c	1.00	
Peak 15-min vehicle-miles of travel, VMT15	424	veh-mi
Peak-hour vehicle-miles of travel, VMT60	1493	veh-mi
Peak 15-min total travel time, TT15	26.0	veh-h
Capacity from ATS, CdATS	0	veh/h
Capacity from PTSF, CdPTSF	1700	veh/h
Directional Capacity	2267	veh/h

HIGHPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	DS	**Highway Name**	Two-Lane Arterial	**Study Period**	K100
Date Prepared	2/21/2012 3:31:24 PM	**From**	A	**Program**	HIGHPLAN 2009
Agency	Calaveras County	**To**	B	**Version Date**	7/17/10
Area Type	Transitioning/Urban	**Peak Direction**	Northbound		
File Name	C:\Users\dstanek\AppData\Local\Temp\preview.xml				
User Notes	LOS C Threshold				

Highway Data

Roadway Variables				Traffic Variables			
Area Type	Transitioning/Urban	**Segment Length**	1	**AADT**	9700	**PHF**	0.880
# Thru Lanes	2	**Median**	No	**K**	0.100	**% Heavy Vehicles**	15.0
Terrain	Level	**Left Turn Impact**	Yes	**D**	0.650	**Base Capacity**	1700
Posted Speed	40	**Pass Lane Spacing**	N/A	**Peak Dir. Hrly. Vol.**	631	**Local Adj. Factor**	1.00
Free Flow Speed	45	**% NPZ**	90	**Off Peak Dir. Hrly. Vol.**	340	**Adjusted Capacity**	1186

LOS Results

v/c Ratio	0.54	**Density**	N/A	**PTSF**	86.46	**ATS**	31.9	**% FFS**	70.94
FFS Delay	32.78	**LOS Thresh. Delay**	40.78	**Service Measure**	PctFFS	**LOS**	D		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1600 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	70	220	490	760	1020
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	110	340	760	1170	1570
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1200	3400	7600	11800	15800
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

HIGHPLAN 2009 Conceptual Planning Analysis

Project Information

Analyst	DS	**Highway Name**	Three-Lane Arterial	**Study Period**	K100
Date Prepared	2/21/2012 3:31:24 PM	**From**	A	**Program**	HIGHPLAN 2009
Agency	Calaveras County	**To**	B	**Version Date**	7/17/10
Area Type	Transitioning/Urban	**Peak Direction**	Northbound		
File Name	C:\Users\dstanek\AppData\Local\Temp\preview.xml				
User Notes	LOS C Threshold				

Highway Data

Roadway Variables				Traffic Variables			
Area Type	Transitioning/Urban	**Segment Length**	1	**AADT**	9700	**PHF**	0.880
# Thru Lanes	2	**Median**	Yes	**K**	0.100	**% Heavy Vehicles**	15.0
Terrain	Level	**Left Turn Impact**	No	**D**	0.650	**Base Capacity**	1700
Posted Speed	40	**Pass Lane Spacing**	N/A	**Peak Dir. Hrly. Vol.**	631	**Local Adj. Factor**	1.00
Free Flow Speed	45	**% NPZ**	100	**Off Peak Dir. Hrly. Vol.**	340	**Adjusted Capacity**	1581

LOS Results

v/c Ratio	0.41	**Density**	N/A	**PTSF**	80.71	**ATS**	33.9	**% FFS**	75.22
FFS Delay	26.35	**LOS Thresh. Delay**	34.35	**Service Measure**	PctFFS	**LOS**	C		

Service Volumes

Note: The maximum normally acceptable directional service volume for LOS E in Florida for this facility type and area type is 1600 veh/h/ln.

	A	B	C	D	E
Lanes	**Hourly Volume In Peak Direction**				
1	90	290	640	1000	1330
2					
3					
4					
Lanes	**Hourly Volume In Both Directions**				
2	140	450	990	1540	2050
4					
6					
8					
Lanes	**Annual Average Daily Traffic**				
2	1400	4600	10000	15400	20600
4					
6					
8					

*** Cannot be achieved based on input data provided.**
 # Performance measure results are no longer applicable with the presence of passing lanes. Refer to the service volume tables to obtain the LOS.

Appendix 2D
Airport Master Record – Maury Rasmussen Field

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

AIRPORT MASTER RECORD

PRINT DATE: 05/01/2012
AFD EFF 04/05/2012
Form Approved OMB 2120-0015

> 1 ASSOC CITY: SAN ANDREAS
> 2 AIRPORT NAME: CALAVERAS CO-MAURY RASMUSSEN FIELD
3 CBD TO AIRPORT (NM): 04 SE
4 STATE: CA
6 REGION/ADO: AWP/SFO
LOC ID: CPU
FAA SITE NR: 02141.11*A
5 COUNTY: CALAVERAS CA
7 SECT AERO CHT: SAN FRANCISCO

GENERAL

10 OWNERSHIP: PU
> 11 OWNER: COUNTY OF CALAVERAS
> 12 ADDRESS: GOVERNMENT CENTER
SAN ANDREAS, CA 95249
> 13 PHONE NR: 209-736-2501
> 14 MANAGER: KATHY ZANCANELLA
> 15 ADDRESS: PO BOX 112
SAN ANDREAS, CA 95249-0815
> 16 PHONE NR: 209-736-2501
> 17 ATTENDANCE SCHEDULE:
NOV-APR ALL 0800-1700
MAY-OCT ALL 0700-1800

18 AIRPORT USE: PUBLIC
19 ARPT LAT: 38-08-46.0000N ESTIMATED
20 ARPT LONG: 120-38-53.4000W
21 ARPT ELEV: 1328.0 SURVEYED
22 ACREAGE: 93
> 23 RIGHT TRAFFIC: 31
> 24 NON-COMM LANDING: NO
25 NPIAS/FED AGREEMENTS: NGY
> 26 FAR 139 INDEX:

SERVICES

> 70 FUEL: 100LL
> 71 AIRFRAME RPRS: MAJOR
> 72 PWR PLANT RPRS: MAJOR
> 73 BOTTLE OXYGEN:
> 74 BULK OXYGEN:
75 TSNT STORAGE: TIE
76 OTHER SERVICES:
INSTR, RNTL

FACILITIES

> 80 ARPT BCN: CG
> 81 ARPT LGT SKED:
> 82 UNICOM: 123.000
> 83 WIND INDICATOR: YES-L
84 SEGMENTED CIRCLE: YES
85 CONTROL TWR: NONE
86 FSS: RANCHO MURIETA
87 FSS ON ARPT: NO
88 FSS PHONE NR:
89 TOLL FREE NR: 1-800-WX-BRIEF

BASED AIRCRAFT

90 SINGLE ENG:	50
91 MULTI ENG:	2
92 JET:	0
TOTAL:	52
93 HELICOPTERS:	0
94 GLIDERS:	0
95 MILITARY:	0
96 ULTRA-LIGHT:	1

OPERATIONS

100 AIR CARRIER:	0
102 AIR TAXI:	0
103 G A LOCAL:	15,000
104 G A ITNRNT:	17,000
105 MILITARY:	0
TOTAL:	32,000

OPERATIONS FOR 12 MONTHS ENDING 02/28/2010

RUNWAY DATA

	13/31	H1	H2	
> 30 RUNWAY IDENT:	13/31	H1	H2	
> 31 LENGTH:	3,603	65	65	
> 32 WIDTH:	60	65	65	
> 33 SURF TYPE-COND:	ASPH-G	ASPH-G	ASPH-G	
> 34 SURF TREATMENT:				
35 GROSS WT: SW	12.5			
36 (IN THSDS) DW				
37 DTW				
38 DDTW				
> 39 PCN:				

LIGHTING/APCH AIDS

> 40 EDGE INTENSITY:	MED			
> 42 RWY MARK TYPE-COND:	BSC - G / BSC - G	- / -	- / -	- / -
> 43 VGSI:	/ V4R	/	/	/
44 THR CROSSING HGT:	/ 31	/	/	/
45 VISUAL GLIDE ANGLE:	/ 3.00	/	/	/
> 46 CNTRLN-TDZ:	- / -	- / -	- / -	- / -
> 47 RVR-RVV:	- / -	- / -	- / -	- / -
> 48 REIL:	/	/	/	/
> 49 APCH LIGHTS:	/	/	/	/

OBSTRUCTION DATA

50 FAR 77 CATEGORY:	A(V) / A(V)	/	/	/
> 51 DISPLACED THR:	/	/	/	/
> 52 CTLG OBSTN:	TREE /	/	/	/
> 53 OBSTN MARKED/LGTD:	/	/	/	/
> 54 HGT ABOVE RWY END:	15 /	/	/	/
> 55 DIST FROM RWY END:	660 /	/	/	/
> 56 CNTRLN OFFSET:	150L /	/	/	/
57 OBSTN CLNC SLOPE:	30:1 / 50:1	/	/	/
58 CLOSE-IN OBSTN:	N / N	N / N	N / N	/

DECLARED DISTANCES

> 60 TAKE OFF RUN AVBL (TORA):	/	/	/	/
> 61 TAKE OFF DIST AVBL (TODA):	/	/	/	/
> 62 ACLT STOP DIST AVBL (ASDA):	/	/	/	/
> 63 LNDG DIST AVBL (LDA):	/	/	/	/

(>) ARPT MGR PLEASE ADVISE FSS IN ITEM 86 WHEN CHANGES OCCUR TO ITEMS PRECEDED BY >

> 110 REMARKS:

A 017 FOR ATTENDANT AFT HRS CALL 209-736-2501 OR 209-754-1908
A 081 RWY BCN DUSK-DAWN. MIRL RY 13/31 OPERS DUSK-0000; AFT 0000 ACTVT MIRL - CTAF; ACTVT VASI RY 31 - CTAF.
A 110-1 EFFECTIVE RY GRADIENT RY 13 0.6% UP.
A 110-2 HELICOPTER PARKING POSITIONS SOUTHEAST CORNER OF AIRPORT

111 INSPECTOR: (S) 112 LAST INSP: 03/10/2010 113 LAST INFO REQ:

Airport Name	**CALAVERAS CO-MAURY RASMUSSEN FIELD**	Associated City	**SAN ANDREAS**
FAA Site	**02141.11*A**	Location Identifier	**CPU**
NPIAS Number	**06-0207**	Hub Type	
Service Level	**General Aviation**		

Data Effective Date: 04/05/2012 *Provided By GCR & Associates, Inc.*

General Information **Services & Facilities** **Based Aircraft & Operations** **Runway Information**

CBD to Airport(NM)	**04 SE**
County	**CALAVERAS**
REG/ADO	**AWP SFO**
SECT AERO CHT	**SAN FRANCISCO**
Ownership	**PUBLIC**
Owner	**COUNTY OF CALAVERAS**
Address	**GOVERNMENT CENTER SAN ANDREAS, CA 95249**
Phone No	**209-736-2501**
Manager	**KATHY ZANCANELLA**
Address	**PO BOX 112 SAN ANDREAS, CA 95249-0815**
Phone No	**209-736-2501**

Attendance Schedule

MONTHS	DAYS	HOURS
NOV-APR	ALL	0800-1700
MAY-OCT	ALL	0700-1800

Airport Use	**PUBLIC**
Airport Latitude:	**38-08-46.0000N ESTIMATED**
Airport Longitude	**120-38-53.4000W**
Airport Elevation:	**1328.0 SURVEYED**
Acreage	**93**
Right Traffic	**31**
Non-Commercial Landing Fee	**NO**
NPIAS/Federal Agreement	**NGY**
FAR 139 Index	
Last Inspection Date	**03/10/2010**

Open larger map

Appendix 2E
Calaveras County Bridge Inventory

Structure Maintenance & Investigations

Local Agency Bridge List

January, 2012

CALAVERAS COUNTY

California Department of Forestry

Bridge Number	Dist	Bridge Name	Facility Carried	City	Bypass Length	Lanes ONUN	AADT	Appr Width	Str Type	Road Width	Year Built	SD/FO	Length	Suff Rating
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	20	5.2	310	3.7	1935	SD	52	43.7
30F0004	10	CALAVERITAS CREEK	PONDEROSA WAY		23	0100	1	3.7	302	5.1	1949	FO	12	52.8

Structure Maintenance & Investigations

Local Agency Bridge List

January, 2012

CALAVERAS COUNTY

California Dept of Parks and Recreation

Bridge Number	Dist	Bridge Name	Facility Carried	City	Bypass Length	Lanes ONUN	AADT	Appr Width	Str Type	Road Width	Year Built	SD/FO	Length	Suff Rating
30P0001	10	NORTH FORK STANISLAUS RIVER	BIG TREES PARKWAY	STPK	199	0200	300	7.0	302	8.5	1959		74	89.2

Structure Maintenance & Investigations

Local Agency Bridge List

January, 2012

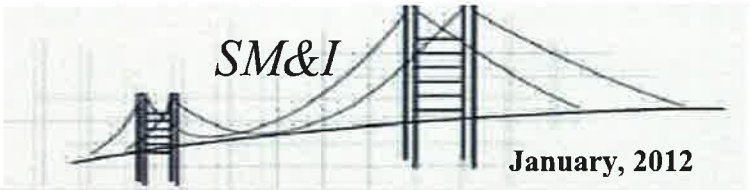
CALAVERAS COUNTY

City of Angels Camp

Bridge Number	Dist	Bridge Name	Facility Carried	City	Bypass Length	Lanes ONUN	AADT	Appr Width	Str Type	Road Width	Year Built	SD/FO	Length	Suff Rating
30C0074	10	ANGELS CREEK	KURT DRIVE	ANG	199	0200	300	9.8	101	9.8	1983		7	89.2
30C0082	10	ANGELS CREEK	BOOSTER WAY	ANG	2	0200	200	4.6	201	7.3	1990		19	90.5

Structure Maintenance & Investigations

Local Agency Bridge List



January, 2012

CALAVERAS COUNTY

County of Calaveras

Bridge Number	Dist	Bridge Name	Facility Carried	City	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 ROAD		26	0200	27	4.6	201	5.8	1936		10	61.7
30C0013	10	COSGROVE CREEK	HOGAN DAM RD		13	0200	500	5.5	201	5.7	1941	FO	11	49.2
30C0015	10	COYOTE CREEK	MAIN STREET		4	0200	300	6.2	501	8.3	2003		19	97.4
30C0016	10	MOKELUMNE RIVER	MIDDLE BAR RD		24	0200	70	3.7	310	6.1	1912	SD	63	35.7
30C0017	10	NORTH FORK CALAVERAS RIVER	JESUS MARIA ROAD		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	65.4
30C0019	10	YOUNGS CREEK	LIME CREEK RD		3	0200	100	5.8	204	6.4	1917		14	71.5
30C0020	10	COSGROVE CREEK	HOGAN DAM ROAD		13	0200	1000	6.1	319	6.4	1962	FO	14	79.2
30C0021	10	COYOTE CREEK	MONGE RANCH ROAD		199	0100	50	3.0	302	3.6	1935	FO	13	53.6
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 ROAD		8	0200	200	7.3	201	8.5	1951		47	96.9
30C0024	10	CALAVERITAS CREEK	CALAVERITAS RD		5	0100	100	4.9	310	5.3	1928	SD	31	33.4
30C0026	10	SAN ANDREAS CREEK	MAIN ST		1	0200	400	6.1	111	6.8	1914		9	58.8
30C0027	10	MIDDLE FORK MOKELUMNE RI	SCHADD ROAD		199	0200	100	6.7	504	8.5	1968		16	91.1
30C0028	10	BLACK CREEK	OBYRNES FERRY RD		80	0200	5000	8.5	204	8.5	1972	SD	38	62.7
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 R		3	0200	50	3.7	101	5.5	1920		10	75.8
30C0035	10	CALAVERITAS CREEK	POOLE STATION ROAD		42	0200	900	9.7	106	9.7	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 ROAD		23	0200	700	9.2	101	9.2	2001		41	96.2
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	59.7
30C0040	10	O'NEIL CREEK	SHEEP RANCH RD		84	0200	300	7.6	302	7.7	1930		13	66.5
30C0041	10	MCKINNEY CREEK	SHEEP RANCH RD		84	0200	300	8.5	119	8.4	1967		6	92.9
30C0042	10	HUNTINGTON CREEK	MILTON ROAD		89	0200	1000	9.8	119	9.8	1967		8	94.3
30C0043	10	SOUTH GULCH CREEK	MILTON RD		89	0200	1000	7.7	119	9.8	1967		10	94.3
30C0044	10	ESPERANZA CREEK	RAILROAD FLAT ROAD		42	0200	601	6.5	302	6.1	1940	FO	14	68.2
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	0.0	1978		17	96.6

Appendix 4A – 4N
2012 RTP Capital Project Summaries

APPENDIX 4A

2012 RTP CAPITAL IMPROVEMENTS

COUNTY ROAD AND BRIDGE PROJECTS

Priority	Funding Source	RTP Goal/ Proponent	Location	Description	Total Cost[1] ($1,000)	Construction Tier	Purpose and Need: System Preservation	Capacity Enhancement	Safety	Multi-Modal
Calaveras County										
	Rim Priority Projects									
			Murphys Grade Rd. (Phase 1)		$1,657	1	x	x	x	x
			Murphys Grade Rd. (Phase 2)		$2,486	2				
			SR 4 Wagon Trail		$46,947	1	x	x	x	x
			Pool Station Rd. (Phase 1)	Mitigate impacts of future growth: LOS,	$683	1	x	x	x	x
			Pool Station Rd. (Phase 2)	emergency response, collisions, air quality,	$1,024	2				
			Mountain Ranch Rd. (Phase 1)	economic development, quality of life	$2,583	1				
			Mountain Ranch Rd. (Phase 2)		$3,874	2				
				Subtotal Priority RIM (Tier 1)	*$51,870*					
	Local Roads			*Subtotal Priority RIM (Tier 2)*	$7,384					
				Subtotal Rim Priolrty	*$59,254*					
	HBP		Br.#30C-67	Replace Bridge - Warren Rd./Warren Creek	$1,266	1	x		x	
				Subtotal Bridge (Tier 1)	*$1,266*					
				Total County Road/Bridge Capital Costs	**$60,520**					
	HUT		Calaveras County	Street Maintenance (O&M) - (Tier 1)	$28,000	1				
	HUT		Calaveras County	Street Maintenance (O&M) - (Tier 2)	*$39,200*	2				
				Total County Road/Bridge Costs	**$127,720**					

[1] Total Cost Based on Year of Expenditure inflation rate of 2.5%. Cost reflects portion not paid by development fees.

[2] Short-Range Tier 1 is 2010 - 2021; Long Range Tier 2 is 2022 - 2035

APPENDIX 4B

2012 RTP CAPITAL IMPROVEMENTS

CITY OF ANGELS ROAD AND BRIDGE PROJECTS

							Purpose and Need		
Priority	Funding Source	RTP Goal/ Proponent	Location	Description	Total Cost[1] ($1,000)	Construction Tier[2]	System Preservation	Capacity Enhancement	Safety	Multi-Modal
City of Angels										
	HSIP/Local		Booster Way	Widen, realign and reconstruct SR 4 to Booster Way (300 ft. section)	$586	1		x	x	
	Local		Dogtown Rd. (Phase 1)	Realignment (Preliminary Engineering	$615	1			x	
			Dogtown Rd. (Phase 2)	Realignment (Construction)	$1,436	2				
	HSIP/Local		Finnegan Lane	Construct 60 ft. of retaining wall	$166	1	x			
	HSIP/Local		Gardner Lane north of Murphys Grade Rd.	Construct 1,500 ft. of curb, gutter, sidewalk storm drain, widen	$721	1		x		x
	HSIP/Local		Rollen Bypass Rd.@Murphys Grade Rd.	Realign intersection; relocate PG&E driveway; install 450 ft. of drain, and resurface	$390	1	x		x	
	HSIP/Local		Sonora St.	Construct 275 ft. of retaining wall and install 300 feet of guardrail from Martina St. to 300 north	$699	1	x		x	
	RIP/Local		SR 4 Bypass@SR 4	Improve intersection with grade separation instead of "T"	$612	1		x	x	
	Local		SR 4@SR 49 South Intersection	Reconstruct bridge (PS&E) and intersection	$4,000	1			x	
	HBP		SR 4@SR 49 South Intersection	Reconstruct bridge and intersection	$12,864	2				
	HSIP/Local		SR 49@Murphys Grade Rd.	Reconstruct intersection	$895	1			x	
	Local		Citywide	Install traffic signals at major intersections	$1,385	1			x	
				Total Tier 1	*$10,070*					
				Total Tier 2	*$14,300*					
				Total City of Angeles Capital Costs	**$24,370**					
	HUT		City of Angels	Street maintenance (O&M) - (Tier 1)	$900	1				
	HUT		City of Angels	Street maintenance (O&M) - (Tier 2)	$1,170	2				
				City of Angels Total Road and Bridge Cost	**$26,440**					

[1] Total Cost Based on Year of Expenditure inflation rate of 2.5%.

[2] Short-Range Tier 1 is 2010 - 2021; Long Range Tier 2 is 2022 - 2035. Note Tier 2 projects may be moved to Tier 1 if additional funding becomes avaialble.

APPENDIX 4C

2012 RTP CAPITAL AND PROGRAM IMPROVEMENTS

TRANSIT

							Purpose and Need		
Priority	Funding Source	Project Number/ Proponent	Location	Description	Total Cost[1] ($1,000)	Construction Tier[2]	System Preservation	Capacity Enhancement	Safety	Multi-Modal/ Ammenity
	FTA / PTMISEA	CCPW		Countywide Transit Bench and Shelter Program		1				x
	FTA / PTMISEA					1				x
	FTA / PTMISEA					1				x
	FTA / PTMISEA					1				x
	FTA / PTMISEA					1				x
	FTA / PTMISEA					1				x
	FTA / PTMISEA					1				x
	FTA / PTMISEA				$540	1				x
	FTA / PTMISEA	CCPW	Transit Systemwide	Transit Vehicle Replacement (approxiately 2 buses per year)	$1,724	1	x			x
			Transit Operating	Transit O&M (Tier 1)	$11,106	1				
				Subtotal Tier 1	*$13,370*					
	FTA / PTMISEA	CCPW	Transit Systemwide	Transit Vehicle Replacement (approxiately 2 buses per year)	$2,823	2	x			x
			Transit Operating	Transit O&M (Tier 2)	$17,602	2				
				Subtotal Tier 2	*$20,425*					
				Total Transit Costs	**$33,795**					

[1] Total Cost Based on Year of Expenditure inflation rate of 2.5%. Note: additional projects may be added as they are identified and funding identified.

[2] Short-Range Tier 1 is 2010 - 2021; Long Range Tier 2 is 2022 - 2035

APPENDIX 4D

2012 RTP CAPITAL IMPROVEMENTS

AVIATION

Priority	Funding Source	Project Number/ Proponent	Location	Description	Total Cost[1] ($1,000)	Construction Tier[2]	Purpose/Need			
							System Preservation	Capacity Enhancement	Safety	Multi-Modal
1	CAAP		Maury Rasmussen Field	Overlay main parking area (paved & striped in 1981)	$35	1	x			
2	CAAP		Maury Rasmussen Field	Update AWOS	$60	1			x	
3	CAAP		Maury Rasmussen Field	Replace 30-year old beacon	$6	1	x		x	
4	AIP		Maury Rasmussen Field	Install PAPI for TW 13	$85	1			x	
5	AIP		Maury Rasmussen Field	Slurry seal runway and taxiway	$325	1	x			
	O&M		Maury Rasmussen Field	Aviation O&M (Tier 1)	$3,070	1				
				Subtotal Tier 1	*$3,581*					
	O&M		Maury Rasmussen Field	Aviation O&M (Tier 2)	*$4,605*	2				
				Subtotal Tier 2	*$4,605*					
				Total Aviation	**$8,186**					

[1] Total Cost Based on Year of Expenditure inflation rate of 2.5%.

[2] Short-Range Tier 1 is 2010 - 2021; Long Range Tier 2 is 2022 - 2035

APPENDIX 4E

2012 RTP CAPITAL IMPROVEMENTS

NON-MOTORIZED (CLASS I AND II FACILITIES)

Priority	Funding Source	Community	Location	Description	Total Cost[1] ($1,000)	Construction Tier[2]	System Preservation	Capacity Enhancement	Safety	Multi-Modal/ Ammenity
		Calaveras County Class I Bike Paths								
	Local/ BTA	Arnold	SR 4 (1.2 miles)	Class I Sidepath along SR 4 Blagen Rd. to Country Club Dr.	$1,155	1				x
	Local/ BTA	Arnold	Multi-use Path (0.6 miles)	Class I Henry St. to Vallecito Day School	$677	1				x
	Local/ BTA	Arnold	Multi-use Path (0.3 miles)	Class I Green Meadow Ct. to Cedar Lane	$338	2				x
	Local/ BTA	Arnold	Multi-use Path (0.1 miles)	Class I Willow St. to Oak Circle	$113	2				x
	Local/ BTA	Copperopolis	Copper Cove Drive (0.9 miles	Class I Black Creek Dr. to O'Byrnes Ferry Rd.	$836	2				x
	Local/ BTA	Copperopolis	O'Byrnes Ferry Rd. (0.2 miles)	Class I Copper Cove Dr. to Spangler Lane	$225	1				x
	Local/ BTA	San Andreas	SA Creek-Elm Sch Path (0.1)	Class I Gold Hunter Rd. to East End existing path	$113	2				x
	Local/ BTA	San Andreas	SA Creek-Elm Sch Path (0.3)	Class I Lewis Ave. to Pope St.	$338	1				x
	Local/ BTA	San Andreas	SA Creek-Elm Sch Path (0.2)	Class I Pope St. to Govt Center Rd. (Phase 1)	$225	1				x
	Local/ BTA	San Andreas	SA Creek-Elm Sch Path (0.4)	Class I Pope St. to California (Phase 2)	$451	2				x
		Murphys	Mainstreet Murphys	Jones St. to Big Trees Market	$15	1				
	Local/ BTA	Murphys	Ironstone Pathway (1.5 miles)	Class I Main St. to Ironstone Vineyards	$1,692	1				x
	SR2S	Valley Springs	Access to Jenny Lind Phase II	Construct bike/ped improvements on major access route to Jenny Lind Elementary	$1,000	1				x
	SR2S	San Andreas	Calaveras High School	Safe routes	$1,000	1				
				Subtotal Class I Bike Paths (Tier 1)	*$6,327*					
				Subtotal Class 1 Bike Paths (Tier 2)	*$1,850*					
				Total Class 1 Bike Paths	***$8,177***					
		Calaveras County Class II Bike Lanes								
	Local/ BTA	Angels Camp	Main St. SR 49 (2.4 miles)	Class II SR 4 to SR 4	$171	1				x
	Local/ BTA	Angels Camp	Stanislaus Ave. (0.2 miles)	Class II San Joaquin to Gold Cliff	$140	1				x
		Angels Camp	Mainstreet Angels	Dogtown Rd. to SR 4	$259	2				
		Valley Springs	SR 26 (.05 miles)	Class II SR 12 to Hogan Dam Rd.	$1,700	2				
				Subtotal Class II Bike Lanes (Tier 1)	*$311*					
				Subtotal Class II Bike Lanes (Tier 2)	*$1,959*					
				Total Class II Bike Lanes	***$2,270***					
				Total Calaveras County Non-Motorized	**$10,447**					
		City of Angels Pedestrian Improvements								
	Local	City of Angels	Altaville School	Construct 260 sq.ft. public restroom facilities and 5,000 sq. ft. of landscaping	$124	1	x			x
	Local	City of Angels	SR 49	Rehabilitate old rock walkway and upgrade existing walkway	$511	1	x			x
		City of Angels	SR 49	Add pedestrian amenities	$511	2				
	Local	City of Angels	Tryon Park (Trail Head)	Construct 260 sq.ft. public restroom facilities and 5,000 sq. ft. of landscaping	$124	1	x			x
				Subtotal Pedestrian Improvements Tier 1	*$759*					
				Subtotal Pedestrian Improvements Tier 2	*$511*					
				Total City of Angels Non-Motorized	**$1,270**					
				Total Non-Motorized Costs	**$11,717**					

[1] Total Cost Based on Year of Expenditure inflation rate of 2.5%.

[2] Short-Range Tier 1 is 2010 - 2021; Long Range Tier 2 is 2022 - 2035

APPENDIX 4F

2012 RTP CAPITAL IMPROVEMENTS

NON-MOTORIZED CLASS III BIKE ROUTES WITH ROADWAY IMPROVEMENTS

Priority	Funding Source	Community	Location	Description	Total Cost[1] ($1,000)	Construction Tier[2]	System Preservation	Capacity Enhancement	Safety	Multi-Modal/ Ammenity
		Calaveras County Class III Bike Routes								
	Local/BTA	AC Murphys	Vallecito Rd. (4.7 miles)	Rolleri Bypass Rd. to Murphy's Grade Rd.	$2,001	2				x
	Local/BTA	Angels Camp	SR 4 (5.7 miles)	Pool Station Rd. to City Limits	$3,130	1				x
	Local/BTA	Copperopolis	SR 4 (4.0 miles)	O'Byrnes Ferry Rd. to Salt Spring Valley Rd.	$2,195	1				x
	Local/BTA	Copperopolis	SR 4 (0.9 miles)	Salt Spring Valley Rd. to Pool Station Rd.	$474	1				x
	Local/BTA	Valley Springs	SR 12 (7.9 miles)	Valley Springs to SR 49	$26	1				x
	Local/BTA	Angels Camp	SR 49 (1.0 miles)	Class III Glory Hole Rd. to City Limits	$234	1				x
	Local/BTA	San Andreas	SR 49 (3.7 miles)	Pool Station Rd. to San Andreas	$1,202	1				x
	Local/BTA	San Andreas	SR 49 (7.3 miles)	Pool Station Rd. to SR 26	$2,358	2				x
	Local/BTA	Jenny Lind	SR 26 (3.4 miles)	Garner Pl. to Baldwin Street	$517	1				x
	Local/BTA	Jenny Lind	SR 26 (0.6 miles)	Jenny Lind Rd. to Garner Pl.	$101	1				x
	Local/BTA	Valley Springs	SR 26 (4.6 miles)	Baldwin Street to SR 12 along SR 26	$704	1				x
	Local/BTA	A.C./Frogtown	Glory Hole Rd. (2.1 miles)	SR 49 to Campground	$324	1				x
	Local/BTA	A.C. Murphys	Murphys Grade Rd.(6.3 miles)	City Limits to Mainstreet Murphys	$3,450	2				x
	Local/BTA	Angels Camp	Murphys Grade Rd.(0.3 miles)	SR 49 to City Limits Angels Camp	$90	1				x
	Local/BTA	Copperopolis	Copper Cove Dr.(1.6 miles)	Little John Rd. to Black Creek Dr.	$463	2				x
	Local/BTA	Copperopolis	O'Brynes Ferry Rd. (3.9 miles)	Copper Cove Dr. to SR 4	$2,132	1				x
	LocalBTA	City of Angels	Dogtown Rd. (5.3 miles)	City Limits to San Domingo Rd.	$2,913	1				
	Local/BTA	Murphys/Dogtown	Dogtown Rd. (5.3 miles)	San Domingo Rd. to Calaveritas Rd.	$2,892	1				
				Subtotal Tier 1	*$16,924*					
				Subtotal Tier 2	*$8,271*					
				Total Class III Bike Routes	**$25,205**					

[1] Total Cost Based on Year of Expenditure inflation rate of 2.5%.

[2] Short-Range Tier 1 is 2010 - 2021; Long Range Tier 2 is 2022 - 2035

APPENDIX 4G

2012 RTP CAPITAL IMPROVEMENTS

NON-MOTORIZED CLASS III BIKE ROUTES (SIGNAGE ONLY)

Priority	Funding Source	Community	Location	Description	Total Cost[1] ($1,000)	Construction Tier[2]	System Preservation	Capacity Enhancement	Safety	Multi-Modal/ Ammenity
		Calaveras County Class III Bike Routes								
	Local/ BTA	Angels Camp	Rolleri Bypass Rd. (0.5 miles)	Vallecito to City Limits	$3	1				x
	Local/ BTA	Angels Camp	SR 49 (4.1 miles)	New Melones Reservoir to Glory Hole Rd.	$196	1				x
	Local/ BTA	Angels Camp	Whittle Rd. (0.5 miles)	SR 49 to County Line	$22	1				x
	Local/ BTA	Arnold	Avery Hotel Rd. (0.1 miles)	SR 4 to Moran Rd.	$0.3	1				x
	Local/ BTA	Arnold	Cedar Lane (0.3 miles)	Pine Drive to SR 4	$0.6	1				x
	Local/ BTA	Arnold	Fir St. (0.2 miles)	Willow St. to Dunbar Rd.	$0.3	1				x
	Local/ BTA	Arnold	Lakemont Dr. (1.1 miles)	Lakewood Dr. to End	$2.7	1				x
	Local/ BTA	Arnold	Sequoia St./Stagg Drive (0.2 miles)	Willow St. to Manual Rd.	$0.5	1				x
	Local/ BTA	Arnold	Dunbar Rd. (0.6 miles)	Hazel Fisher to Fir St.	$1.3	1				x
	Local/ BTA	Arnold	Pine Dr. (1.3 miles)	Henry Street Connector to Lakewood Dr.	$3.8	1				x
	Local/ BTA	Arnold	SR 4 (5.6 miles)	Blagen Rd. to Dorrington	$18	1				x
	Local/ BTA	Arnold	Dunbard Rd. ((0.1 miles)	Henry Street Connector to Linebaugh Rd.	$0.1	1				x
	Local/ BTA	Arnold	Henry St. (0.1 miles)	Henry Street Connector to SR 4	$0.1	1				x
	Local/ BTA	Copperopolis	Black Creek Dr. (0.2 miles)	Copper Cove Dr. to High School	$9	2				x
	Local/ BTA	Copperopolis	Little John Rd. (5.8 miles)	SR 4 to Copper Crest Dr.	$275	1				x
	Local/ BTA	Copperopolis	O'Byrnes Ferry Rd. (4.1 miles)	Tulloch Reservoir to Copper Crest Dr.	$13	1				x
	Local/ BTA	Copperopolis	Rock Creek Rd. (6.0 miles)	SR 4 to Salt Spring Valley Rd.	$19	1				x
	Local/ BTA	Copperopolis	Salt Springs Valley Rd. ((5.8 miles)	Rock Creek Rd. to SR 4	$18	1				x
	Local/ BTA	Copperopolis	SR 4 (8.1 miles)	O'Byrnes Ferry Rd. to Stanislaus County	$26	1				x
	Local/ BTA	Murphys	Main St. (Murphys) (0.5 miles)	Murphys Grade Rd. to SR 4	$1	1				x
	Local/ BTA	Murphys	Scott St. (0.5 miles)	Six Mile Rd. to Main Street (Murphys)	$1	1				x
	Local/ BTA	Murphys	Six Mile Rd. (2.0 miles)	Algiers St. to Vallecito Bluffs Rd.	$6	1				x
	Local/ BTA	Murphys	Skunk Ranch Rd. (0.4 miles)	Pennsylvania Gulch to Vineyard Terrace	$1	1				x
	Local/ BTA	Murphys	Algiers St. (0.5 miles)	Main St. (Murphys) to Six Mile Rd.	$1	1				x
	Local/ BTA	Murphys	Pennsylvania Gulch Rd. (1.2 miles)	SR 4 to Skunk Ranch Rd.	$4	1				x
	Local/ BTA	Valley Springs	SR 12 (7.9 miles)	Valley Springs to SR 49	$26	1				x
	Local/ BTA	West Point	SR 26 (2.7 miles)	West Point to North County Line	$9	1				x
				Subtotal Tier 1	$648					
				Subtotal Tier 2	$9					
				Total Class III Bike Routes with Signage Only	**$657**					

[1] **Total Cost Based** on **Year of Expenditure** inflation rate of 2.5%.

[2] Short-Range Tier 1 is 2010 - 2021; Long Range Tier 2 is 2022 - 2035

APPENDIX 4H

2012 RTP CAPITAL IMPROVEMENTS

PEDESTRIAN IMPROVEMENTS (Sidewalks and Connectivity)

Priority	Funding Source	Community	Location	Description	Total Cost[1] ($1,000)	Construction Tier[2]	System Preservation	Capacity Enhancement	Safety	Multi-Modal/ Ammenity
		Avery	Avery Hotel Rd.	SR 4 to Moran Rd.	$14	1				x
		Avery	Sanders Lane	Moran Rd. to Avenuery Middle School	$12	1				x
		Copperopolis	Copper Cove Drive Multi-Use Path	Black Creek Dr. to O'Byrnes Ferry Rd.						
		Copperopolis	O'Byrnes Ferry Rd. Sidewalk	Spangler Lane to Cosmic Ct.	$9	1				x
		Murphys	Main Street Murphys	Jones St. to Big Trees Market		1				x
		San Andreas	SR 49 Sidewalk	San andreas to San Joaquin Avenue	$723	1				x
		West Street Pont	Bald Mountain Rd./Pine St. Sidewalk	West Street Point Elementary School to Main St.	$26	1				x
		Arnold	Vallecito Path	Henry St. to Vallecito Day School						
		City of Angels	Stanislaus Ave.	Main St. to San Joaquin Avenue		1				x
		Murphys	Big Trees Rd.	Jones St. to SR 4	$36	1				x
		Copperopolis	O'Byrnes Ferry Rd. Multi-Use Path	Copper Cove Dr. to Spangler Lane						
		San Andreas	Elementary School Multi-Use Path	Goldstriker Rd. to East St. End Exit Sterling Path						
		San Andreas	Elementary School Multi-Use Path	Lewis Avenue to Pope St.						
		San Andreas	Elementary School Multi-Use Path	Pope St. to government Center Rd.						
		San Andreas	Elementary School Multi-Use Path	Pope St. to California						
		San Andreas	High School Street	High School Street to SR 49	$113	1				x
		San Andreas	Lewis Avenue	Goldstrike Rd. to Pope St.	$338	1				x
		San Andreas	Lewis Avenue	California to Goldstrike Rd.	$451	1				x
		Valley Springs	SR 26 (both sides)	SR 12 to Shopping Center						
				Subtotal Tier 1	*$1,722*					
				Total Sidewalk Segments	**$1,722**					

[1] Total Cost Based on Year of Expenditure inflation rate of 2.5%. Project costs are incuded as part of Class I and II Improvements in Appendix 4E or 4A and 4B.

[2] Short-Range Tier 1 is 2010 - 2021; Long Range Tier 2 is 2022 - 2035

APPENDIX 4I

2012 RTP CAPITAL IMPROVEMENTS

TRANSPORTATION ENHANCEMENT (TE)

Priority	Funding Source	Community	Location	Description	Total Cost[1] ($1,000)	Construction Tier[2]	System Preservation	Capacity Enhancement	Safety	Multi-Modal/ Ammenity
	TE	City of Angels	SR 4 (21.42)	Construct Class I bike path from Tryon Park to Booster Way	$292	1				x
	TE	City of Angels	SR 49 South	Construct 400 ft. long pedestrian way at southerly intersection	$382	1				x
	TE	City of Angels	SR 49 (Gap Infill)	New sidewalks at varous gap locations	$847	1			x	x
	TE	Mokelumne Hill	Veterans District	Main St. sidewalk enhancement/ Park phase II	$300	1				x
				Subtotal Tier 1	*$1,821*					
				Total TE Projects	**$1,821**					

[1] Total Cost Based on Year of Expenditure inflation rate of 2.5%.

[2] Short-Range Tier 1 is 2010 - 2021; Long Range Tier 2 is 2022 - 2035

APPENDIX 4J
2012 RTP CAPITAL IMPROVEMENTS
BENEFIT BASIN 20-YEAR VISION

Priority	Funding Source	Community	Location	Description	Total Cost[1] ($1,000)	Construction Tier[2]	System Preservation	Capacity Enhancement	Safety	Goal(s)
Copperopolis Benefit Basin Projects										
	Roadway Improvements									
			O'Byrnes Ferry Road Bridge	Full reconstruction - Replacement Option D	$388	1				
			O'Byrnes Ferry Road	Straighten curves approaching Tullock Reservoir	$1,520	1				
			Little John Rd.	Upgrade to Minor Collector	$1,461	1		x		
			Reeds Turnpike	Upgrade to Minor Collector	$503	1		x		
			Little John Rd. south of Copper Cove Drive	Upgrade to Minor Collector	$1,232	1		x	x	
			Copper Cove Drive - O'Byrnes Ferry Rd. to Quail Hill Rd.	Upgrade to Minor Collector Cross Section	$1,256	1		x	x	
	Intersection Improvements									
			O'Byrnes Ferry Rd./Copper Cove Dr.	Construct NBL and improve sight distance to the north	$785	1		x		
			Little John Rd./SR 4	Construct traffic signal	$581	1			x	
				Total Copperopolis Benefit Basin	***$7,726***					

APPENDIX 4J

2012 RTP CAPITAL IMPROVEMENTS

BENEFIT BASIN 20-YEAR VISION

Priority	Funding Source	Community	Location	Description	Total Cost[1] ($1,000)	Construction Tier[2]	System Preservation	Capacity Enhancement	Safety	Goal(s)
Valley Springs Benefit Basin Projects										
			SR 26@Baldwin Lane/Baldwin St.	Two-way left-turn pocket	*$451*	1		x	x	
			SR 12@Burson Rd.	Two-way left-turn pocket	$1,725	1		x	x	
				Total Valley Springs Benefit Basin Projects	***$2,176***					
				Total Benefit Basin Project Costs	**$9,902**					

[1] Total Cost Based on Year of Expenditure inflation rate of 2.5%.

[2] Short-Range Tier 1 is 2010 - 2021; Long Range Tier 2 is 2022 - 2035

APPENDIX 4K

2012 RTP CAPITAL IMPROVEMENTS

ROAD IMPACT MITIGATION (RIM) FEE PROGRAM

Priority	Funding Source	Facility Type	Location	Description	Total Cost[1] ($1,000)	Construction Tier[2]
	RIM Priority Projects					
3	RIM	Local Road	Murphys Grade Rd. (Phase 1)	The purpose of the RIM fee is to fund planning, design, and construction of transportation infrastructure required to mitigate impacts of future growth. The goal is to maintain adequate LOS, faciitate emergency response, reduce collisions, improve air quality, foster economic development, and enhance quality of life for residents.	$458	1
			Murphys Grade Rd. (Phase 2)		$458	2
4	RIM	State Highway	SR 4 Wagon Trail		$3,053	1
5	RIM	Local Road	Pool Station Rd. (Phase 1)		$637	1
			Pool Station Rd. (Phase 2)		$637	2
			Mountain Ranch Rd. (Phase 1)		$433	
			Mountain Ranch Rd. (Phase 2)		$433	1
				Subtotal RIM Priority Projects	*$6,107*	
				Total RIM Program Costs	**$6,107**	

[1] Total Cost Based on Year of Expenditure inflation rate of 2.5%. Total Cost shown is New Development's share. RIM portion is shown on Appendix 4A.

[2] Short-Range Tier 1 is 2010 - 2021; Long Range Tier 2 is 2022 - 2035

APPENDIX 4L

2012 RTP CAPITAL IMPROVEMENTS

COUNTY CAPITAL IMPROVEMENTS (CIP)

ID	Funding Source	Improvement Type	Location	Description	Total Cost[1] ($1,000)	Construction Tier[2]	Purpose/Need			
							System Preservation	Capacity Enhancement	Safety	Multi-Modal
2	HBP	Bridge replacement	O-Byrnes Ferry Rd. (BR # 32C0007)	Bridge Re-construction - replacement and realignment	$32,250	1			x	
3	HBP	Bridge repair	Rail Road Flat Rd.	Bridge Re-construction - remove and replace existing bridge #30C0044 over Experanza Creek.	$2,500	1			x	
4	HBP	Bridge repair	Stagecoach Rd.	Bridge Re-construction - demolish, remove and dispense of low water crossing	$2,500	1			x	
8	SR2S	Access to school	Jenny Lind Elementary/SR 26	Construction of pedestrian/bicycle facility improvements on major access route to Jenny Lind Elementary	$300	1				x
16		Intersection	Mountain Ranch	Scotts Junction intersection realignment	$350	1			x	
				Subtotal Tier 1	*$37,900*					
				Total CIP Projects	**$37,900**					

[1] Total Cost Based on Year of Expenditure inflation rate of 2.5%. Some Highway/Bridge projects moved to Appendix 4A. Some Non-Auto modes moved to Appendix 4E.

[2] Short-Range Tier 1 is 2010 - 2020; Long Range Tier 2 is 2021 - 2035

APPENDIX 4M
2012 RTP UNCONSTRAINED PROJECTS
(UNFUNDED)

							Purpose/Need			
Priority	Funding Source	Project Number/ Proponent	Location	Description	Estimated Cost[1] ($1,000)	Construction Tier[3]	System Preservation	Capacity Enhancement	Safety	Multi-Modal
		CCPW	TBD	Intermodal Transit Facility	$3,587					
		CCPW	Doster Rd.	Sealing (paving) of unpaved road	TBD					
		CCPW	Campo Seco Rd.	Sealing (paving) of unpaved road	TBD					
		CCPW	West Murray Creek Rd.	Sealing (paving) of unpaved road	TBD					
		CCPW	Goodell Rd.	Sealing (paving) of unpaved road	TBD					
		CCPW	Gillam Rd.	Sealing (paving) of unpaved road	TBD					
		CCPW	Avery Sheep Ranch Rd.	Mitigate impacts of future growth: LOS, emergency response, collisions, air quality, economic development, quality of life	$8,609					
		CCPW	Paloma Rd.		$12,215					
		CCPW	Burson Rd.		$8,599					
		CCPW	Jenny Lind Rd.		$3,666					
		CCPW	Milton Rd.		$13,718					
		CCPW	Moran Rd.		$11,432					
		CCPW	Railroad Flat Rd.		$23,676					
		CCPW	Ridge Rd.		$6,252					
		CCPW	Sheep Ranch Rd. (1)		$12,341					
		CCPW	Sheep Ranch Rd. (2)		$27,324					
		CCPW	Mountain Ranch Road	Reconstruct Road and improve sidewalks	$24,000					
		CCPW	Bald Mountain Rd.	Upgrade to 24 ft. section (1.5 miles)	$1,619					
		CCPW	Bernett St.	Extend through to the north as needed for development	$856					
		CCPW	Blue Mountain Rd.	Upgrade to county minimum road standards - 24 ft. section (1.5 miles)	$990					
		CCPW	Copper Cove Dr.	Upgrade to 24 ft. section	$3,422					
		CCPW	Dogtown Rd.	Upgrade to 24 ft. section (1.1 miles)	$431					
		CCPW	Dogtown Rd.	Upgrade to minimum road standards Lakeside Dr. to San Domingo Cr. Bridge	$984					
		CCPW	Doster Rd.	Upgrade to 24 ft. section (1.0 mile)	$746					
		CCPW	East Murray Creek	Upgrade to 24 ft. section (2.39 miles)	$1,803					
		CCPW	French Gulch Rd.	Upgrade to 24 ft. section (0.53 miles)	$396					
		CCPW	Fullen Rd.	Upgrade to 24 ft. section (3.1 miles)	$1,987					
		CCPW	Hunt Rd.	Upgrade to 24 ft. section (14.5 miles)	$5,713					
		CCPW	Jesus Maria Rd.	Reconstruct road SR 26 to Railroad Flat Rd. (12.9 miles)	$8,354					
		CCPW	O'Bymes Ferry Rd.	Upgrade to Major Collector status	$24,576					
		CCPW	Ospital Rd.	Upgrade to 24 ft. section full length	$2,421					
		CCPW	Pennsylvania Gulch Rd.	Upgrade to 24 ft. section (4.3 miles)	$3,168					
		CCPW	Rock Creek Rd.	Upgrade to 24 ft. section (14.4 miles)	$5,668					
		CCPW	Silver Rapids Rd.	Upgrade to 24 ft. section	$290					
		CCPW	Six Mile Rd.	Upgrade to 24 ft. section (1.0 mile)	$744					
		CCPW	Swiss Rand Rd.	Upgrade to 24 ft. section (1.0 mile)	$1,001					
		CCPW	Vista del Lago	Upgrade to 24 ft. section	$1,891					
		CCPW	Whiskey Slide Rd.	Upgrade to 24 ft. section (4.9 mile)	$3,646					
		CCPW	SR 4 Passing Lanes	Mitigate impacts of future growth: LOS, emergency response, collisions, air quality, economic development, quality of life	$2,095					
		CCPW	SR 12 Widening		$3,932					
		CCPW	SR 12/26 Bypass		$34,964					
		CCPW	Valley Springs Bypass	Construct Bypass/Expressway	$2,700					
		CCPW	Angel Oaks Drive	Extend Angel Oaks Drive to SR 49	$11,480					
		CCPW	Bennett St.	Extend Bennett St. through to the North as development requires	$1,010					
		CCPW	Kurt Drive	Extend Kurt Drive to Murphys Grade Rd.	$5,145					
		Aviation	Maury Rasmussen Field	Remodel administration building to comply with ADA requirements	$150					
			Foundry Lane	Construct new 2-land roadway from SR 4 (west) to Angel Oaks Dr.	$2,228					

APPENDIX 4M
2012 RTP UNCONSTRAINED PROJECTS
(UNFUNDED)

							Purpose/Need			
Priority	Funding Source	Project Number/ Proponent	Location	Description	Estimated Cost[1] ($1,000)	Construction Tier[3]	System Preservation	Capacity Enhancement	Safety	Multi-Modal
			Purdy Road	Construct new 2-lane roadway from Purdy Rd. to Kurt Dr. and widen existing	$2,468					
			Gold Cliff Rd.	Construct new 2-lane roadway connecting Greenhorn Creek Rd. to Gold cliff Rd.	$2,369					
			Sierra Avenue	Construct new 2-lane roadway connecting Greenhorn Rd. to Tuolumne Ave.	$790					
			Demarest Street	Construct new 2-lane roadway extension Damarest St. to Stockton Rd.	$790					
			Stockton Rd.	Widen Stockton Rd.	$2,228					
			Vallecito Rd./SR 4 Bypass	Construct right-turn lane at intersection	$931					
			SR 49 Bypass - SR 49 N. to SR 49 S.	Construct new 2-lane roadway (4 miles)	$89,338					
			SR 49@Copello Drive	New signal	$522					
			Kurt Dr./Murphy's Grade Rd.	New signal	$522					
			SR 49@Vallecito Rd.	New signal Includes bridge reconstruction	$15,510					
			SR 4 (W) Angel Oaks Dr.	New signal	$522					
			Angel Oaks Dr. Extension/Foundry Lane	New signal	$522					
			SR 49/Angel Oaks Dr. Extension	New signal	$522					
			SR 49/Bret Harte Rd.	New signal	$522					
			Multi-use pathway (0.6 miles	Class I Steeplechase Rd. to O'Byrnes Ferry Rd.	$1,423					
			Cosgrove Corridor (3.4 miles)	Class I Hogan Dam Rd. to South Petersburg Rd.	$3,272					
			Little John Rd. (5.3 miles)	Class II Kiva Drive to Reeds Turnpike	$10					
			Reeds Turnpike Rd. (1.3 miles)	Class II Little John Rd. to O'Byrnes Ferry Rd.	$37					
			SR 4 (0.4 miles)	Class II Pennsylvania Gulch Rd. to Tom Bell Rd.	$18					
			SR 49 (1.4 miles)	Class II Pool Station Rd. to Mountain Ranch Rd.	$59					
			SR 12 (0.6 miles)	Class II Lime Creek Rd. to Pine St.	$15					
			SR 26 (0.5 miles)	Class II SR 12 to Hogan Dam Rd.	$9					
			SR 26/104 (1.9 miles)	Class II Snead Rd. to Railroad Flat Rd.	$17					
			Main St. (0.3 miles)	Class II SR 26/104 to Pine St.	$38					
			Finnegan Lane	Construct Angels Camp Bikeway at Angels Creek	$513					
			Altaville School	Construct 260 sq.ft. public restroom facilities and 5,000 sq. ft. of landscaping	$124					
			Finnegan Lane	Widen roadway from Spreadboroughs south to future pump house; construct rock wall for flood control; install two-way traffic and parking; construct foot bridge over creek and restore old Mill	$1,094					
			Hardscrabbie	Construct sidewalks Raspberry to SR 4/SR 49 North	$10,351					
			SR 49	Rehabilitate old rock walkway and upgrade existing walkway	$1,022					
			Tryon Park	Construct 260 sq.ft. public restroom facilities and 5,000 sq. ft. of landscaping	$124					
			North South Connector/SR 4	New roadway connection the southern end of Little John Road to SR 4 - Minor Collector Classification	$72,106					
			O'Bymes Ferry Road in Calaveras	Upgrade to Major Collector	$14,822					

APPENDIX 4M
2012 RTP UNCONSTRAINED PROJECTS
(UNFUNDED)

							Purpose/Need			
Priority	Funding Source	Project Number/ Proponent	Location	Description	Estimated Cost[1] ($1,000)	Construction Tier[3]	System Preservation	Capacity Enhancement	Safety	Multi-Modal
			SR 4 through Study Area	Widen to 4 Lanes	TBD					
			SR 4/Rock Creek Rd./Main Street	Construct traffic signal	$663					
			O'Bymes Ferry Rd./Copper Cove Dr.	Construct traffic signal	$540					
			Little John Rd./Reeds Turnpike	Construct traffic signal and add EBL (Total = EBL and EBL/T/R), NBT/L, NBR (Remove NBL/T/R)	$1,172					
			North South Connector/SR 4	Construct traffic signal	$1,724					
			O'Bymes Ferry Rd./Copper Meadows Rd.	Construct SBL, NBR, and SBR	$228					
			O'Bymes Ferry Rd./Connors Estate Dr.	Construct NBL and SBR	$162					
			O'Bymes Ferry Rd./Poker Flat Rd.	Construct NBL and SBR	$730					
			O'Bymes Ferry Rd./Duchess Dr.	Construct NBL and SBR	$709					
		RIM	Avery Sheep Ranch Rd.	The purpose of the RIM fee is to fund planning, design, and construction of transportation infrastructure required to mitigate impacts of future growth. The goal is to maintain adequate LOS, faciitate emergency response, reduce collisions, improve air quality, foster economic development, and enhance quality of life for residents.	$1,852					
		RIM	Paloma Rd.		$4,404					
		RIM	Burson Rd.		$3,327					
		RIM	Jenny Lind Rd.		$467					
		RIM	Milton Rd.		$3,494					
		RIM	Moran Rd.		$8,623					
		RIM	Railroad Flat Rd.		$20,661					
		RIM	Ridge Rd.		$805					
		RIM	Sheep Ranch Rd. (1)		$5,519					
		RIM	Sheep Ranch Rd. (2)		$11,876					
			SR 4 Passing Lanes	The purpose of the RIM fee is to fund planning, design, and construction of transportation infrastructure required to mitigate impacts of future growth. The goal is to maintain adequate LOS, faciitate emergency response, reduce collisions, improve air quality, foster economic development, and enhance quality of life for	$305					
			SR 12 Widening		$373					
			SR 12/26 Bypass		$2,736					
			Construct Bypass/expressway		$37,700					
			Mountain Ranch	Scotts Junction intersection realignment	$350					
		Local/BTA	Murphys SR 4 Sidepath	Tom Bell to Micheison Elementary	$42					
		Local/BTA	Valley Springs - Cosgrove SR 26 Spur (1.4 miles	Class I South Petersburg Rd. to Silver Springs Rapid Rd.	$1,347					
		Local/BTA	SR 4 (12.1 miles)	Murphy's Grade Rd. to Blagen Rd.	$6,639					
		Local/BTA	San Ancreas - SR 49 (9.3 miles)	San Andreas to Angels Camp	$5,114					
		M Hill/Mountain R	Jesus Maria Rd.(5.9 miles)	SR 26 to Rail Road Flat Rd.	$3,278					
		Valley Springs	Foothill Community Parks and Recreation	Construct Cosgrove Creek Bike Path	$525					
			Main St./Reeds Tumpike	Limit parking on Main Street to improve sight dist	$49					
			Rock Creek Rd./Main Street./SR 4	Construct EB Ramp	$481					
			Main Street/Reeds Turnpike	Add North Bound Lane (NBL)	$550					
			SR 26@Olive Orchard Rd./Garner Place	Two-way left-turn pocket	$1,500					
		CCPW	Murphys	Old Murphys Schoolhouse Restoration/Preservation	$500					
				Total Unfunded Cost	**$640,884**					

[3] These projects are desired and/or needed but adequate funding has not been identified through 2035. If fund become available, some projects may move to the constrained list.

APPENDIX 4N

2012 RTP PROJECTS IN-PROGRESS OR COMPLETED

				Purpose/Need			
Project Number/ Proponent	Location	Description	Total Cost[1] ($1,000)	System Preservation	Capacity Enhancement	Safety	Multi-Modal/ Ammenity
CCPW	Angels Camp	Transfer Facility Phase I					x
CCPW	Angels Camp	Transfer Facility Phase II					x
CCPW	Systemwide	Transit Vehicle Replacement short-term		x			x
CCPW	Countywide	Transit Bench & Shelter Program					
		San Andreas Government Center					x
		Valley Springs - Valley Oaks					x
		Mokelumne Hill - Sierra Trading Post					x
		Cooperopolis Library					x
		Copperopolis Copper Cove/Little John					x
		Mountain Ranch - Blunder Inn					x
		Avery - Avery Hotel Road					x
CCPW	Systemwide	Purchase of Vehicle Maintenance Lift					x
		Fuel Tanks/Fueling Stations					x
		Automated Vehicle Location (AVL) System					x
		Schedule holders at transit stops					x
		Trash/recycle receptacles@high-ridership stops					x
Caltrans Planning Grant	Systemwide	Intercity Feasibility Study					x
Caltrans		Google Transit Phase II					x
Paratransit Services		Transit Ambassador Program Marketing					x
CCPW	Valley Springs	Daphne Street Bike Path - Construction of pedestrian/bicycle facility on a major route into Valley Springs.					x
CCPW	Arnold (Pine Dr., Oak Ct.)	Bike/Ped connection, Arnold Rim Trail Network Link					x
	Sierra Nevada Region	Restore Shay locomotive at Logging Museum					x
CCPW	Avery Sheep Ranch Rd.	Road rehabilitation paving and resurfacing		x			
CCPW	French Gulch Rd.			x			
CCPW	Campo Seco Rd.						
CCPW	West Murray Creek Rd.						
CCPW	Whiskey Slide rd.						
CCPW	Goodell Rd.						
CCPW	Gillam Rd.			x			
CCPW	Fourth Crossing Rd.			x			
CCPW	Mokelumne Rd. W			x			
CCPW	Milton Rd.			x			
CCPW	Main St. (Copperopolis)			x			
CCPW	Hogan Dam Rd.						
CCPW	Murphys Grade Rd.			x			
CCPW	Pool Station Rd.						
CCPW	SR 26 Intersection						
CCPW	Mountain Ranch Road						
CCPW	Daphne St.			x			
CCPW	Jenny Lind Elementary/SR 26	Construction of pedestrian/bicycle improvements on major access route to school					x
CCPW	Murphys Grade Rd.	Guardrail construction, two segments					

APPENDIX 4N

2012 RTP PROJECTS IN-PROGRESS OR COMPLETED

Project Number/ Proponent	Location	Description	Total Cost[1] ($1,000)	Purpose/Need			
				System Preservation	Capacity Enhancement	Safety	Multi-Modal/ Ammenity
CCPW	Mountain Ranch Road	Guardrail construction, safety edge, overlay					
Highway/Bridge Projects							
RTIP	SR 4	Arnold Passing Lane			x		
RTIP	SR 88	Cooks and Hams Stations Passing Lanes			x		
RTIP	SR 49/MRR Intersection	Roadway realignment, curb, gutter, sidewalk, lighting - Mountain Ranch Rd. SR 49 to Govt. Center Dr.					
RTIP	SR 4 Wagon Trail	Realignment of SR 4 Copperopolis to City of Angels			x		
RTIP	SR 49	Amador Bypass			x		
RTIP	O'Byrnes Ferry Rd.	Traffic signal @ SR 108					
RTIP	SR 4	Angels Camp Bypass			x		
HBP	Calaveritas Rd. Bridge#0024	Replace bridge and realign				x	
HBP	Dogtown Rd. Bridge#0048	Replace bridge and realign		x		x	
HBP	Dogtown Rd. Bridge#0050	Replace bridge and realign		x		x	
HBP	Dogtown Rd. Bridge#0049	Replace bridge and realign		x		x	
HBP	Stagecoach Rd. Bridge#0039	Replace bridge and realign		x		x	
HBP	Hogan Dam Bridge#L0042	Replace bridge and realign		x		x	
HBP	Lime Creek Bridge#0018	Replace bridge and realign		x		x	
HBP	Monge Ranch Bridge#0021	Replace bridge and realign		x		x	
HBP	San Domingo Bridge#L0063	Replace bridge and realign		x		x	
HBP	Schadd Bridge#L0084	Replace bridge and realign		x		x	
HBP	Single Tree Bridge#L0051	Replace bridge and realign		x		x	
HBP	Whiskey Slide Bridge#0062	Replace bridge and realign		x		x	
HBP	Hawver Rd. Brige#L038	Demolish, remove and dispense of low water crossing		x		x	
CMAQ	SR12/SR 26 Intersection	Improve				x	
HSIP	Mountain Ranch Road	Uphill and downhill turnouts				x	
HSIP	Mountain Ranch Road	Install 2 solar powered advance curve warning and speed message signes				x	
HBP	Copperopolis	Construct 8 foot shoulder and install new guardrail				x	
	Copperopolis	Roadway widening and contruction of northbound left-turn lane and shoulders at O'byrnes Ferry Rd./Duchess			x	x	
CMAQ	City of Angels	Install traffic signal at SR 49@Stanislaus				x	
	SR 26@Vista Del Lago	Two-way left-turn pocket			x	x	
	SR 12@Pettinger Rd.	One-way left-turn pocket			x	x	
BTA	Multi-use Path (0.1 miles) in Arnold	Class I Oak Ct. to Pine Dr.					x
RIM	Mountain Ranch Road	Turnouts					

Appendix 6A
Environmental Documentation - Initial Study and Checklist

TABLE OF CONTENTS

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INITIAL STUDY CHECKLIST

PROJECT TITLE

2012 Calaveras County Regional Transportation Plan

LEAD AGENCY NAME AND ADDRESS

Calaveras Council of Governments (CCOG)
444 E. Saint Charles Street/Highway 49
San Andreas, CA 95249

CONTACT PERSON AND PHONE NUMBER

Melissa Eads, Executive Director
444 E. Saint Charles Street/Highway 49
San Andreas, CA 95249
(209) 754-2094

PROJECT SPONSOR'S NAME AND ADDRESS

Calaveras Council of Governments (CCOG)
444 E. Saint Charles Street/Highway 49
San Andreas, CA 95249

PROJECT LOCATION AND SETTING

Calaveras County is located within the foothills of the Sierra Nevada mountain range approximately 133 miles east of San Francisco and 85 miles southeast of Sacramento. The County was incorporated in 1850. The County is bordered by Alpine County to the east, Amador County to the north, Tuolumne County to the south, and Stanislaus and San Joaquin Counties to the west (see Figure 1.1). The County seat is located in San Andreas. The county is rural with a dispersed population and a population density of approximately 44 persons per square mile (0.6 persons per acre).

GENERAL PLAN AND ZONING

There are a variety of General Plan Land Use designations applicable throughout the entire County, which includes the entire project area. The proposed project was designed to be consistent with the General Plans of Calaveras County and the City of Angels. The Circulation Elements from each of these general plans were used as a reference during the development of the 2012 Calaveras County Regional Transportation Plan. The proposed project is consistent with each of these general plans and does not include any proposed changes to the above-referenced general plans.

PROJECT DESCRIPTION

The proposed project is the adoption and implementation of the 2012 Calaveras County Regional Transportation Plan (RTP). The Calaveras Council of Governments (CCOG), which serves as the Regional Transportation Planning Agency (RTPA) for the County of Calaveras and the City of Angels, is required by law to adopt and submit an approved Regional Transportation Plan (RTP) to the California Transportation Commission (CTC) every five years. The RTP will serve as the guide to planning transportation investments in Calaveras County involving

federal, state and local funding through 2035. The development of the RTP is a cooperative effort between the CCOG, County, City of Angels, Caltrans, tribal governments, and residents of Calaveras County.

Transportation improvements proposed in the RTP cover all modes of travel reflecting a system planning approach within Calaveras County. Improvements are categorized as short-term (0-10 years) or long-term (11-25 years). The Regional Transportation Improvement Program (RTIP) is comprised of the first five years of RTP projects and is described later in the document. The RTP planning effort focuses on developing a balanced financially constrained transportation system that ensures projected revenues cover all transportation improvement costs over the life of the plan (2035).

The 2012 RTP is divided into six Chapters plus appendices as described below:

Chapter 1 - Introduction – Describes demographic changes that have occurred in the County since the 2007 RTP update and the new requirements contained in the RTP Guidelines. The section also includes a discussion of the public process used during plan development and preparation.

Chapter 2 - Assessment of Needs – Identifies the existing and future deficiencies of the Calaveras County transportation system by mode. It includes a description of the methodology used to develop future traffic projections and to analyze traffic operations and level of service (LOS) under existing and future conditions.

Chapter 3 - Policy Element – Contains the goals, objectives, and policies that address transportation issues by mode. Statewide and regional issues are discussed based on the financial constraints facing the County and City and the goals and vision of the region. The policy element addresses short-term (0-10 year) and long-term (11-25 year) objectives and includes a summary of key performance measures to evaluate RTP funding alternatives.

Chapter 4 - Action Element – Describes the State and regional transportation planning processes, as well as the process undertaken to evaluate various improvement options. The Action Element will summarize plan assumptions, past accomplishments, modal alternatives, and the purpose, need, and implementation timeframe of recommended projects. Specific improvements are identified by mode for short-range and long-range capital programs designed to meet the anticipated needs of the County's and City's regional circulation system. Project cost estimates and sponsoring agencies are also identified.

Chapter 5 - Financial Element – Lists the costs, revenues, deficits/surpluses for each transportation mode. The RTP must be financially constrained through 2035. This means that all project costs must be covered by the anticipated revenues through this period. Projects that are needed and desired, but for which no revenues have been reasonably identified are placed on the "unconstrained" list. These projects can be elevated to implementation status through future RTP updates, or at the decision of the CCOG, the County, and/or the City of Angels. Many of these projects began as recommendations as long-term projects, but after a fiscal constraints analysis, actual funding was not deemed available through 2035.

The Financial Element shows consistency with: the STIP fund estimate adopted by the California Transportation Commission (CTC); the RTP goals, policies, and objectives; and the projects included in the RTIP and ITIP for Calaveras County.

Chapter 6 - Environmental Review – This section describes the environmental review processes and procedures, the consultation process, and provides a summary of the program level environmental impacts of the transportation plan. All notifications to the State Clearing House are documented.

Appendices – The appendices include additional information and technical data including a complete public involvement plan and process used by the CCOG to prepare the RTP and other planning documents, Level of Service analysis (LOS) and methodology, and complete list of recommended RTP projects and/or programs.

More detailed information on the RTP can be found at the CCOG website (www.calacog.org).

OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED (E.G., PERMITS, ETC.)

Calaveras Council of Governments will be the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of the California Environmental Quality Act (CEQA), Section 15050. No specific permits are required by any other responsible or trustee agencies to approve the proposed project. However, there are numerous permits and approvals that may be required to implement the improvements identified in the RTP. The following additional agency approvals apply to the proposed project: County of Calaveras, City of Angels, California Transportation Commission (CTC), and California Department of Transportation (Caltrans).

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Insert Figure 1.1

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

None of the environmental factors listed below would be potentially affected by this project, as described on the following pages.

	Aesthetics		Agriculture and Forest Resources		Air Quality
	Biological Resources		Cultural Resources		Geology/Soils
	Greenhouse Gasses		Hazards and Hazardous Materials		Hydrology/Water Quality
	Land Use/Planning		Mineral Resources		Noise
	Population/Housing		Public Services		Recreation
	Transportation/Traffic		Utilities/Service Systems		Mandatory Findings of Significance

DETERMINATION:

On the basis of this initial evaluation:

	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Melissa Eads, Executive Director

Date

EVALUATION INSTRUCTIONS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances).

Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:
   a) The significance criteria or threshold, if any, used to evaluate each question; and
   b) The mitigation measure identified, if any, to reduce the impact to less than significant.

The Initial Study and Proposed Mitigated Negative Declaration reflect the independent judgment of CCOG staff and the Technical Advisory Committee (TAC). On the basis of the Initial Study, CCOG hereby finds:

> *Although the proposed project could have a significant adverse effect on the environment, there will not be a significant adverse effect in this case because the project has incorporated specific provisions to reduce impacts to a less than significant level and/or the mitigation measures described herein have been added to the project. A Mitigated Negative Declaration has thus been prepared.*

The Initial Study, which provides the basis and reasons for this determination, is attached and/or referenced herein and is hereby made a part of this document. The funding shortfall for transportation improvements within Calaveras County and the City of Angels is considered the major impact of the 2012 RTP. The result is that all of the transportation improvements that are needed to maintain acceptable Level of Service (LOS) on State, County, and City roads are not included in the plan. Many of these projects have been included in the "unfunded" list of improvements. However, the RTP projects that are included and that meet the "fiscal constraint" criteria are considered priorities for the CCOG, County and City of Angels for meeting RTP goals and policies established for the 2012 RTP to the degree possible.

(Note: Because the RTP is a program level regional planning document, the environmental review for the RTP is also at a programmatic level. The RTP does not include any project-level specific designs or approvals. Furthermore, approval of the RTP would not preclude future environmental review of project specific improvements. If, when, any transportation improvement projects that are identified in the RTP gets funding, is designed, and up for consideration by a decision making body, it would require project specific level environmental review.)

EVALUATION OF ENVIRONMENTAL IMPACTS:

In each area of potential impact listed in this section, there are one or more questions which assess the degree of potential environmental effect. A response is provided to each question using one of the four impact evaluation criteria described below. A discussion of the response is also included.

- Potentially Significant Impact. This response is appropriate when there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries, upon completion of the Initial Study, an EIR is required.
- Less than Significant With Mitigation Incorporated. This response applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
- Less than Significant Impact. A less than significant impact is one which is deemed to have little or no adverse effect on the environment. Mitigation measures are, therefore, not necessary, although they may be recommended to further reduce a minor impact.
- No Impact. These issues were either identified as having no impact on the environment, or they are not relevant to the Project.

ENVIRONMENTAL CHECKLIST

This section of the Initial Study incorporates the most current Appendix "G" Environmental Checklist Form, contained in the CEQA Guidelines. Impact questions and responses are included in both tabular and narrative formats for each of the 18 environmental topic areas.

I. AESTHETICS

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Have a substantial adverse effect on a scenic vista?		*X*		
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?		*X*		
c) Substantially degrade the existing visual character or quality of the site and its surroundings?		*X*		
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		*X*		

BACKGROUND

Scenic Highways

The State of California has designated twenty-four miles of SR 4 within Calaveras County, from east of Arnold to the Alpine County line, as a California Scenic Highway. The State has also conferred scenic highway status on an additional thirty-two miles of SR 4 within Alpine County, from the Calaveras County line to SR 89. SR 4 between Arnold and Markleeville is also designated as a National Scenic Byway.

Rural Landscapes

Ranching Landscapes

Ranching and agriculture play only a small role in the modern Calaveras County economy, providing less than one percent of county jobs. Ranching plays an outsized role, however, in the formation of the landscape of grassy open areas broken by oak trees, barns, corrals, fences, gates, and rock walls that is closely associated with the Sierra foothills, and that visitors and residents often see from Calaveras County's highways.

Mining Landscapes

Most Calaveras County communities date back to the Gold Rush era, and evidence of mining activity is ubiquitous throughout the rural landscape. It is estimated that almost 90,000 people arrived in California in the two years after gold was discovered in 1848. Approximately 50,000 to 60,000 were Americans and the rest were from other countries. Whether arriving overland by horse and wagon or by ship, they all endured extraordinary hardship and risk in the quest for instant riches. As the Gold Rush played out, it left a strong mark on the landscape and

culture of the Sierra Nevada, including Calaveras County. Mining activity after the Gold Rush technically ended in 1856, but it has left a mark on the Calaveras County landscape.

Community Character

The community character in Calaveras County is tied to its historic heritage and rural landscapes. Each community is uniquely distinct from one another, while there are also similarities. Some of the distinctions are a result of population size, elevation level, and the relationship of a given community to highways (SR 4 and SR 49). Some of the communities at lower elevations (to the west) are closest to major urban centers and tend to have larger long-distance commuter populations. Communities at higher elevations (to the east) tend to have fewer commuters, and often depend more strongly on tourism. Communities immediately on SR 4, a major tourist corridor, are somewhat more likely to be sites for significant second home development and tourism-related businesses. The most rural portion of the county, generally speaking, is north of SR 4 and east of SR 49.

RESPONSES TO CHECKLIST QUESTIONS

Response a-c): Views of scenic resources, scenic water resources, and other scenic resources in the county are available from highways and roadways, including scenic roads and corridors, throughout the county. Improvements to existing infrastructure may result in modification of the foreground of the various scenic viewsheds throughout the county.

There is also potential for individual improvement projects to affect scenic vistas and resources or degrade the visual character of the area. Examples would include improvement projects that are located adjacent to a broad viewshed such as the mountain ranges, valleys, ridgelines, or water bodies along roadways, or adjacent to the focal point of the forefront of the broad viewshed, such as visually important trees, rocks, or historic buildings. An impact would occur if a project would change the view to the middle ground or background elements of the broad viewshed, or remove the visually important trees, rocks, or historic buildings in the foreground.

While individual projects are not anticipated to significantly disrupt mid-ground or backdrop views of scenic vistas, individual projects have not yet been designed and may involve features, such as soundwalls, grading, or structures that may disrupt views. These projects may involve removal of trees or other visually significant features, or may result in development that would cause an intermittent interruption in views to users of the highways, roadways, and other components of the transportation system. Individual projects could also convert areas of open space to developed uses, resulting in a permanent change in views.

While each jurisdiction in which the improvements may be located has policies related to the protection of scenic resources and views, the potential remains for removal of scenic features, particularly those that would be in the foreground of scenic viewsheds and vistas. The following mitigation measures require projects to include design measures to avoid or reduce removal of scenic features and scenic views. Implementation of these mitigation measures would reduce the impact to a ***less-than-significant*** level.

> ***Mitigation Measure 1:*** *Prior to construction, the implementing agency will consider the following measures in the design of a project:*
>
> - *Design transportation systems in a manner where the surrounding landscape dominates.*
> - *Design transportation systems to be compatible with the surrounding environment (e.g., colors and materials of construction material).*

- *Design transportation systems such that landscape vegetation complements the natural landscape.*
- *Design transportation systems such that trees are maintained intact, or if removal is necessary, incorporate new trees into the design.*
- *Design grades to be consistent with the construction guidelines required in the County or City of Angels.*

Mitigation Measure 2*: Prior to the design approval of a project, the implementing agency will consider whether the project would remove any significant visual resources in the project area (trees, outcroppings, buildings) or obstruct views of the identified scenic resources. If it is determined that a project would impact scenic resources, the implementing agency should consider alternative designs that avoid, minimize or mitigate the visual impacts to the extent feasible.*

Response d): There is a potential for an individual project under the RTP to create new sources of light and glare near sensitive receptors. Examples would include projects that require new roadway lighting, lit signs, and/or construction lighting. The following mitigation measure would require lighting that is directed downward and away from adjacent sensitive land uses, installation of shields to avoid light spillage, and installation of dense landscaping to block light from sensitive land uses where necessary. Implementation of the following mitigation measure would reduce this impact to a ***less-than-significant*** level.

Mitigation Measure 3: *Prior to construction, the implementing agency will ensure that projects are designed to meet minimum safety and security standards and to avoid spillover lighting to sensitive uses. Design could include, but are not limited to, the following:*

- *Luminaries that cast low-angle illumination to minimize incidental spillover of light onto adjacent private properties and undeveloped open space. Fixtures that project light upward or horizontally will not be used.*
- *Luminaries should be directed away from habitat and open space areas adjacent to the project site.*
- *Luminary mountings that reduce potential for back scatter into the nighttime sky and incidental spillover of light onto adjacent private properties and undeveloped open space. Exterior lighting that is directed downward and shielded in order to confine light to the boundaries of the subject project.*

II. AGRICULTURE AND FOREST RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			X	
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526)?			X	
d) Result in the loss of forest land or conversion of forest land to non-forest use?			X	
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			X	

BACKGROUND

Agricultural Resources

Agricultural production in Calaveras County was valued at $21,695,800 in 2010. Cattle and calves are the leading farm commodity with a 2010 value of $7,002,000. Poultry is the number two commodity ($4,042,000), followed by wine grapes ($3,120,000) and walnuts ($1,024,000). Production value drops off significantly with the remaining commodities: Christmas trees, sheep and lambs, olives, grain hay, apiary, and pistachios.

The California Department of Conservation has not designated any land in Calaveras County as important farmland. There is over 130,000 acres of land under an active Williamson Act Contract.

Forest Resources

Forest Types and Habitats

Calaveras County has a diverse range of forest types and vegetation. Cover types in the County include blue oak foothill pine, blue oak woodlands, montane hardwood, montane hardwood-conifer, and Sierran mixed conifer, Ponderosa pine, Jeffrey pine, and Douglas fir. Sierran mixed conifer is dominated by Jeffrey pine and white fir, with incense cedar, ponderosa pine, sugar pine, and red fir found as associated conifer species. The eastern higher elevations of the County primarily consist of Sierran mixed conifer and large swathes of Ponderosa pine, red fir, and lodgepole pine. Red fir and lodgepole pine are not traditionally used for timber production. The eastern portion of the County contains approximately 78,000 acres of land designated as Timber Production Zone.

Stanislaus National Forest

The Stanislaus National Forest covers approximately 900,000 acres throughout Alpine, Calaveras, Mariposa, and Tuolumne Counties. This national forest covers 77,901 acres in Calaveras County. Elevations throughout the Stanislaus National Forest range from 840 feet to 11,570 feet. The forest supports a wide variety of wildlife and plant species due to its range in climate, elevation, and geology. The National Forest is also home to the Emigrant Wilderness, Mokelumne Wilderness, and the Carson-Iceberg Wilderness

Timber Industry

The timber industry has played an important role in the agricultural field, and the economy in general, in Calaveras County. Christmas trees have consistently been one of the top ten agriculture commodities in the County over the last decade. Trends for timber production has varied from a high of 67,000 million board feet ($19.899 million) in 1999 to a low of 15,700 million board feet ($3.9 million) in 2005. The value and amount of timber production substantially decreased from 2004 to 2005 due to a forest fire and timber harvesting opportunities in an adjacent county.

RESPONSES TO CHECKLIST QUESTIONS

Response a): The California Department of Conservation has not designated important farmlands in Calaveras County. As such, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. Implementation of the proposed project would have ***no impact*** relative to this issue.

Response b): Calaveras County has an estimated 630 farms on approximately 201,026 acres. Additionally, the County has over 130,000 acres of land under an active Williamson Act Contract. The RTP includes improvements to the transportation systems throughout the county. These improvements are designed to facilitate the Circulation Elements of the applicable General Plans. Transportation improvements proposed are compatible with agricultural zoning and do not conflict with the active Williamson Act Contracts. Agricultural operations throughout the county would benefit from improved movement of their commodities from the farm to the marketplace as a result of the improvements to the transportation systems. Implementation of the proposed project would have a ***less than significant*** impact relative to this issue.

Response c-d): Calaveras County has an approximately 78,000 acres of land designated as Timber Production Zone (TPZ). The RTP includes improvements to the transportation systems throughout the county, including the areas with designated TPZs. These improvements are designed to facilitate the Circulation Elements of the applicable General Plans. Transportation improvements proposed are compatible with timber zoning. Timber operations throughout the county would benefit from improved movement of the timber from the forest as a result of the improvements to the transportation systems. Implementation of the proposed project would have a ***less than significant*** impact relative to this issue.

Response e): The RTP does not **i**nvolve changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use, or conversion of forest land to non-forest use The proposed project will have a ***less than significant*** impact on agricultural or forest lands or operations.

III. AIR QUALITY

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?		X		
e) Create objectionable odors affecting a substantial number of people?			X	

BACKGROUND

Mountain Counties Air Basin

Calaveras County is located within the Mountain Counties Air Basin (MCAB), which includes Nevada, Sierra, Plumas, Amador, Calaveras, Tuolumne, Mariposa counties and a portion of El Dorado and Placer County. California air basin boundary designations generally cover areas that share similar meteorological and geographic conditions. The MCAB includes both the western and eastern slopes of the Sierra Nevada Mountains including much of the Sierra foothills. The area covered is approximately 11,000 square miles.

Climate and Topography

Calaveras County exhibits large variations in terrain and consequently exhibits large variations in climate. Elevations range from 300 feet above sea level in the rolling foothills of the western portion of the county, to 8,170 feet above sea level near the county's northeastern border. Deep ravines and steep ridges are found between the foothills and the higher mountains.

Calaveras County's climate lies in a transitional zone between the Sierra Nevada and the San Joaquin Valley. Climate varies significantly due to great differences in elevation. Temperatures in the higher country range from the low 20's to the middle 80's. The lower foothills range in temperature from the low 30's to the high 90's, exceeding 100 degrees at times during the summer months. Rainfall generally increases with altitude, and snow accounts for much of the precipitation in elevations above 3000 feet.

Air Movement

The prevailing wind direction over the county is westerly. However, the terrain of the area has a great influence on local winds, so that wide variability in wind direction can be expected. In the foothills, regional airflow patterns are influenced by the mountainous and hill covered terrain,

which direct surface air flows, cause shallow vertical mixing, and create areas of high pollutant concentrations by hindering dispersion. Inversion layers, where warm air overlays cooler air, frequently occur and trap pollutants close to the ground.

In the summer, the strong upwind valley air flowing into the basin from the west is an effective transport medium for ozone precursors and ozone generated in the Bay Area and the Sacramento and San Joaquin valleys. These transported pollutants predominate as the cause of ozone in the MCAB and are largely responsible for the exceedances of the state and federal ozone Ambient Air Quality Standards in the MCAB. The California Air Resources Board (CARB) has officially designated the MCAB as "ozone impacted" by transport from those areas.

Ambient Air Quality

Both the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for certain criteria pollutants. These ambient air quality standards represent safe levels of contaminants that avoid specific adverse health effects associated with each pollutant. The criteria pollutants include: Ozone (O_3), Carbon monoxide (CO), Nitrogen dioxide (NO2), Sulfur dioxide (SO2), Respirable particulate matter (PM_{10}), and Fine particulate matter ($PM_{2.5}$). The federal and state ambient air quality standards are summarized in Table 1.

Table 1: Federal and State Ambient Air Quality Standards

POLLUTANT	AVERAGING TIME	STATE STANDARD	FEDERAL PRIMARY STANDARD
Ozone	1-Hour 8-Hour	0.09 ppm (180 µg/m3) 0.070 ppm (137 µg/m3)	-- 0.075 ppm (147 µg/m3)
PM10	24-Hour Annual	50 µg/m3 20 µg/m3	150 µg/m3 --
PM2.5	24-Hour Annual	-- 12 ug/m3	35 µg/m3 15.0 µg/m3
Carbon Monoxide	8-Hour 1-Hour	9.0 ppm (10mg/m3) 20 ppm (23 mg/m3)	9 ppm (10 mg/m3) 35 ppm (40 mg/m3)
Nitrogen Dioxide	Annual 1-Hour	0.030 ppm (57 µg/m3) 0.18 ppm (339 µg/m3)	53 ppb (100 µg/m3) 100 ppb (188 µg/m3)
Sulfur Dioxide	24-Hour 3-Hour 1-Hour	0.04 ppm (105 µg/m3) -- 0.25 ppm (655 µg/m3)	-- -- 75 ppb (196 µg/m3)
Lead	30-Day Avg Calendar Quarter 3-Month Avg.	1.5 µg/m3 -- --	-- 1.5 µg/m3 0.15 µg/m3

SOURCE: CALIFORNIA AIR RESOURCES BOARD, 2012
Notes: ppm = parts per million, ug/m3 = Micrograms per Cubic Meter

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated on the basis of risk rather than specification of safe levels of contamination.

Attainment Status

The U.S. EPA and CARB are required to designate areas of the as attainment, nonattainment, or unclassified with respect to the applicable standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "nonattainment" designation indicates that a pollutant concentration violated the applicable standard at least once.

Calaveras County has a state designation of nonattainment for Ozone and PM_{10}, and is either attainment or unclassified for all other criteria pollutants. The County has a national designation of nonattainment for ozone and is designated either attainment or unclassified for the remaining national standards. Table 2 presents the state and national attainment status for Calaveras County.

Table 2: State and National Attainment Status

CRITERIA POLLUTANTS	STATE DESIGNATIONS	NATIONAL DESIGNATIONS
Ozone	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Unclassified	Unclassified/Attainment
Carbon Monoxide	Unclassified	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Unclassified	
Visibility Reducing Particles	Unclassified	

SOURCES: CALIFORNIA AIR RESOURCES BOARD (2012).

RESPONSES TO CHECKLIST QUESTIONS

Responses a-d):

Long-Term - Operational Affects

Isolated Rural Area Regional Emissions Analysis

A finding of conformity is required under Clean Air Act section 176(c) (42 U.S.C. 7506 (c)) to ensure that federally supported highway and transit project activities are consistent with ("conform to") the State Implementation Plan (SIP). Conformity ensures that transportation activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant national ambient air quality standards. Additionally, SIPs in California are developed to ensure conformity with the State ambient air quality standards.

While regional transportation conformity findings are required to approve RTPs in most places, they are not required for isolated rural areas, which includes CCOG. A SIP is currently being prepared for the region in cooperation with various regulatory agencies. Until the SIP is approved an emissions budget will not be established for Calaveras County.

Although this analysis will not require a formal conformity determination from the FHWA in order to approve the RTP, it will undergo public review in accordance with CCOG policies for community input. These procedures ensure that the public has adequate opportunity to be informed of the regional emissions analysis approach and encourages public participation and comment.

Regional Transportation Indicators

This Isolated Rural Area Regional Emissions Analysis is based on an evaluation of emission trends using the EMFAC 2011. The EMFAC 2011 model, developed by the CARB, is the most recent emissions model recommended for use in California. It should be noted that EMFAC 2011 is not approved for conformity determinations at this time, but CARB recommends using the model for all non-conformity related assessments. As mentioned earlier, CCOG is not subject to conformity for their RTP and this is not a conformity related assessment. As such, EMFAC

2011 is the appropriate model for use in this assessment. Table 3 presents the latest vehicle population, VMT, and trips estimates from 1990 through 2035.

Table 3: EMFAC Inputs

	1990	2010	2020	2035
Vehicles	30,777	46,256	49,214	57,048
VMT/1000	994,507	1,475,189	1,672,306	1,946,869
Trips	186,294	306,586	326,322	377,309

SOURCE: EMFAC 2011 (2012).

Emission Estimates

The regional emissions analysis and forecasts for ROGs, TOGs, CO, NOx, PM10, PM2.5, and SOx are summarized in Table 4. CO2 emissions are discussed under the Greenhouse Gas and Climate Change section of this report. The summary of emissions forecasts is derived from outputs of the EMFAC 2011.

Table 4: Emission Estimates (Tons per Day)

ANALYSIS YEAR	ROG	TOG	CO	NOX	PM_{10}	$PM_{2.5}$	SOX
1990	4.45	4.79	45.41	4.00	0.15	0.11	0.20
2010	1.49	1.60	12.64	2.56	0.12	0.07	0.01
2020	0.71	0.77	5.19	1.24	0.11	0.05	0.01
2035	0.42	0.46	2.86	0.65	0.12	0.06	0.01

SOURCE: EMFAC 2011 (2012).

The results from the emissions model show that 2010 emissions of the ROGs, TOGs, CO, NOx, PM10, PM2.5, and SOx are significantly less than the 1990 emissions levels and continue trending downward through the 2035 analysis horizon. The 2035 PM2.5 emissions are slightly higher than the 2020 levels, but are approximately 40 percent lower than the 1990 levels and still lower than the 2010 levels.

Overall, the model shows a significant decrease in emissions of criteria pollutants, which is related to assumptions in the EMFAC model regarding improvements to fuel efficiency standards and emission rates for vehicles.

Conclusion

While the RTP provides improvements that will increase transportation system capacity, it should be noted that it does not control land development and population growth, rather, the General Plans for the incorporated and unincorporated communities control growth and development. Implementation of the RTP will result in some beneficial air quality impacts as a result of the transportation system improvements.

The emission outputs reflect a decreasing trend of criteria pollutant emissions from 2010 through 2035. The results of the emission model reflects the fact that the state and federal EPA's vehicle and fuel regulations that are being phased into place over the study horizon will bring about significantly lower emission levels, which is particularly important for the reduction of emissions in nonattainment areas.

Implementation of the RTP will not conflict with the Air Quality Plan, cause a violation of Air Quality Standards, contribute substantially to an existing air quality violation, or result in a cumulatively considerable net increase of a criteria pollutant in a nonattainment area. Therefore, this is impact is considered ***less than significant***.

Short-term - Construction Affects

Calaveras County is currently designated as "non-attainment" for ozone and PM_{10}. Construction activities associated with construction and implementation of the various roadway and other transportation improvement projects identified in the RTP would result in temporary short-term emissions associated with vehicle trips from construction workers, operation of construction equipment, and the dust generated during construction activities. These temporary and short-term emissions would generate additional ozone precursors (ROG and NOx) as well as PM_{10}, which could exacerbate the County's existing non-attainment status for these criteria pollutants.

All individual projects would be subject to the AQMD's "Fugitive Dust Prevention and Control and Asbestos Hazard Dust Mitigation Plan", which is a Prescriptive Standard for Calaveras County that applies to all project construction sites. Compliance with the AQMD's Prescriptive Standards will ensure that short-term air quality impacts are reduced to a ***less than significant*** level.

Localized Carbon Monoxide

The RTP projects are designed to improve traffic flows and reduce congestion system-wide, reducing the potential for CO "hot spots" that can occur from exhaust of idling cars waiting to clear a heavily congested intersection or crossing. The RTP projects are intended to reduce congested conditions throughout the system while accommodating additional traffic generated by the increase in population projected for Calaveras County. These are considered beneficial effects.

While the RTP projects will respond to additional traffic and reducing congestion (brought by that additional traffic) system-wide, there is a potential for CO concentrations or hot spots to develop under adverse atmospheric conditions that prevent a rapid dispersion of CO. Currently, the Mountain Counties Air Basin is in attainment of federal and State standards for CO. Nonetheless, there is a potential for some, albeit rare, instances of congestion and an occasional hot spot. The following mitigation measure would ensure traffic flows near sensitive receptors are improved in order to reduce the potential for the formation of CO hot spots. Implementation of the following mitigation measure would reduce this impact to a ***less-than-significant*** level.

> ***Mitigation Measure 4:*** *The implementing agency will screen individual RTP projects prior to implementation to determine funding source. For non-exempt federally-funded projects a CO conformity determination is required. If the project is funded from State or local funds, or it is classified as a federally-funded exempt project, the project will be subject to State standards and any mitigation activities will follow State procedures.*

Asbestos Hazards

Based upon the regional nature of the RTP, development of detailed, site-specific information on this impact at an RTP planning level is not feasible. The implementing agency of each RTP project will conduct appropriate project-level assessments and will be responsible for consideration of mitigation measures for significant effects on the environment. If asbestos is deemed present naturally, or in existing facilities, an Asbestos Hazard Dust Mitigation Plan would be prepared to ensure that adequate dust control and asbestos hazard mitigation measures are implemented during project construction. The following mitigation measure would ensure that any construction activities that may result in the release of asbestos would include appropriate measures contained within an Asbestos Hazard Dust Mitigation Plan to ensure that exposure to construction workers and the public is minimized to acceptable State

and local levels. Implementation of the following mitigation measure would ensure that this potential impact is reduced to a ***less-than-significant*** level.

> ***Mitigation Measure 5:*** *Prior to construction of RTP projects, the implementing agency shall take steps to identify the presence of asbestos including asbestos from structures such as road base, bridges, and other structures and provide measures addressing the containment and/or removal of asbestos material. In the event that asbestos is present, the implementing agency will comply with applicable state and local regulations regarding asbestos. Potential steps could include, but shall not be limited to, the following:*
>
> - *Complying with ARB's asbestos airborne toxic control measure (ATCM) (Title 17, CCR § 93105 and 93106), to ensure that exposure to construction workers and the public is reduced to an acceptable level.*
> - *Preparation of an Asbestos Hazard Dust Mitigation Plan to be implemented during construction activities.*

Responses e): Implementation of the RTP would not directly create or generate objectionable odors. Persons residing in the immediate vicinity of proposed improvements may be subject to temporary odors typically associated with roadway construction activities (diesel exhaust, hot asphalt, etc.). However, any odors generated by construction activities would be minor and would be short and temporary in duration. This is considered a ***less than significant*** impact.

IV. BIOLOGICAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?		X		
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

BACKGROUND

California Wildlife Habitat Relationship System

The California Wildlife Habitat Relationship (CWHR) habitat classification scheme has been developed to support the CWHR System, a wildlife information system and predictive model for California's regularly-occurring birds, mammals, reptiles and amphibians. When first published in 1988, the classification scheme had 53 habitats. At present, there are 59 wildlife habitats in the CWHR System: 27 tree, 12 shrub, 6 herbaceous, 4 aquatic, 8 agricultural, 1 developed, and 1 non-vegetated.

According to the CWHR there are 20 wildlife habitat classifications in Calaveras County out of 59 found in the state. The California Wildlife Habitats classifications are listed in Table 5.

Table 5: Habitat and Land Use Acreage for Calaveras County

LAND USE/HABITAT	PLANNING AREA ACREAGE	PERCENT OF PLANNING AREA
Agriculture	960	0.14%
Annual Grassland	144,460	21.79%
Barren	3,220	0.49%
Blue Oak Woodland	55,330	8.35%
Blue Oak-Foothill Pine	2,050	0.31%
Chamise-Redshank Chaparral	21,580	3.26%
Douglas-Fir	10,820	1.63%
Jeffrey Pine	2,180	0.33%
Lodgepole Pine	3,840	0.58%
Mixed Chaparral	44,860	6.77%
Montane Chaparral	6,980	1.05%
Montane Hardwood	102,120	15.41%
Montane Hardwood-Conifer	90,130	13.60%
Montane Riparian	20	0.00%
Ponderosa Pine	53,380	8.05%
Red Fir	5,660	0.85%
Sierran Mixed Conifer	94,140	14.20%
Urban	4,720	0.71%
Water	16,020	2.42%
Wet Meadow	370	0.06%
Total	662,840	100.00%

SOURCE: CALAVERAS COUNTY, 2008.

Sensitive Natural Communities

A sensitive natural community is a rare vegetation type that provides important habitat opportunities for wildlife, is structurally complex, or which is of special concern to local, state, or federal agencies. Natural communities that are either known or believed to be of high priority for inventory are listed in the California Natural Diversity Database (CNDDB). The CNDDB identifies two sensitive natural communities in Calaveras County, Big Trees Forest and Ione Chaparral.

- Big Trees Forest is primarily composed of Sierran Mixed Conifer Forest habitat with the addition of giant sequoia (*Sequoiadendron giganteum*). Big Trees Forest also lacks the more xeric species (i.e., drought-tolerant) species found in Sierran Mixed Conifer Forest habitat.
- Ione Chaparral is primarily composed of Ione manzanita (*Arctostaphylos myrtifolia*). Ione Chaparral is found throughout western Amador and northern Calaveras counties on very acidic, nutrient-poor, coarse soils, mostly derived from the Eocene Ione formation.

Railroad Flat Deer Herd

The Railroad Flat Deer Herd is a well studied migratory herd of predominately California mule deer (*Odocoileus hemionus californicus*) that travel across approximately 550 square miles of land in the central Sierras annually. The herd's annual migratory route takes thousands of animals from the high elevation pine and fir forests of their summer range in Alpine County to the winter range, spring and fall holding areas, and fawning areas in the open oak woodland and oak savanna of the lower foothills and higher elevation timberlands of central and eastern Calaveras County. Portions of these areas have been designated as Critical Winter Range Habitat by the California Department of Fish and Game (CDFG). Nearly 80 percent of the critical

winter range is on privately held land. There are at least 6,700 acres in Fish and Game Conservation Easements in Calaveras County that protect the winter range of the herd.

The herd can adapt to most habitat types, but optimum habitat has food and canopy cover types arranged in close proximity. Open oak woodlands near water generally support the highest deer population. Declines in the Railroad Flat Deer Herd since the 1960s are generally attributed to reduced quality and fragmentation of habitat. Overuse of available forage, predation, fire suppression, human encroachment, highway fatalities, wildfires, and drought are all factors contributing to this decline.

Critical Habitat Designation

The Endangered Species Act (ESA) requires the Federal government to designate "critical habitat" for any species it lists under the ESA.

Central Valley Steelhead: The National Oceanic and Atmospheric Administration (NOAA) issued a final rule on September 2, 2005 designating critical habitat for the Central Valley steelhead (Oncorhynchus mykiss), an Evolutionarily Significant Unit (ESU) of steelhead in California. Critical habitat in Calaveras County for this species is found in a portion of Calaveras County below New Hogan Reservoir. The final rule identified road building/maintenance as one activity that threatens the Central Valley steelhead.

California Tiger Salamander: On August 23, 2005, U.S. Fish and Wildlife Service issued a final rule designating critical habitat for the central population of California tiger salamander (*Ambystoma californiense*). Critical habitat in Calaveras County for this species is generally located southwest of the town of Valley Springs. Calaveras County contains approximately 3,600 acres of designated critical habitat for the California tiger salamander. The Final Rule identified the following threats to the California tiger salamander in the county:

- Activities that could disturb aquatic breeding habitats during the breeding season, such as heavy equipment operation, ground disturbance, maintenance projects (e.g., pipelines, roads, powerlines), off-road travel, or recreation;
- Activities that impair the water quality of aquatic breeding habitat;
- Activities that create barriers impassable for salamanders or increase mortality in upland habitat between extant occurrences in breeding habitat; and Activities that disrupt the ability of vernal pool complexes to support California tiger salamander breeding function (70 FR 49380).

Special Status Species

Special-status species are generally defined as: 1) species listed as a candidate, threatened, or endangered under the federal or state Endangered Species Act; 2) species considered rare or endangered under the California Environmental Quality Act; 3) plants considered "rare, threatened, or endangered in California" by the California Native Plant Society (Lists 1A/1B); 4) animal listed as "species of special concern" by the state; and 5) animals fully protected in California by the Fish and Game Code.

The following discussion is based on a background search of special-status species that are documented in the California Natural Diversity Database (CNDDB), the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants, and the U.S. Fish and Wildlife Service's (USFWS) endangered and threatened species lists. The background search was

regional in scope and focused on the documented occurrences within the boundaries of Calaveras County.

The search revealed 36 special status species within the region: 20 plants, 16 wildlife. Table 6 provides a list of special-status plant and wildlife species that are documented in the region, their habitat, and current protective status. In addition to these species status species, the search revealed two sensitive natural communities.

Table 6 – Special Status Species documented in Calaveras County

SPECIES	*STATUS*	*HABITAT*
Plants		
three-bracted onion *Allium tribracteatum*	--;--;1B	Chaparral, lower montane coniferous forest, upper montane coniferous forest. Volcanic slopes and ridges. 1100-2750M
Ione manzanita *Arctostaphylos myrtifolia*	FT;--;1B	Chaparral, cismontane woodland on Ione clay with chaparral associates. Often comprises 50-80% cover. 75-560M.
Chinese Camp brodiaea *Brodiaea pallida*	FE;CE;1B	Valley and foothill grassland in flat rocky, intermittent streambed on serpentine. 385M.
Pleasant Valley mariposa-lily *Calochortus clavatus* var. *avius*	--;--;1B	Lower montane coniferous forest. Josephine silt loam and volcanically derived soil; often in rocky areas. 305-1700M.
Hoover's calycadenia *Calycadenia hooveri*	--;--;1B	Cismontane woodland, valley and foothill grassland on exposed, rocky, barren soil. 65-260M.
Davy's sedge *Carex davyi*	--;--;1B	Subalpine coniferous forest, upper montane coniferous forest. 1500-3200M.
Red Hills soaproot *Chlorogalum grandiflorum*	--;--;1B	Cismontane woodland, chaparral, lower montane coniferous forest. Occurs frequently on serpentine or gabbro, but also on non-ultramafic substrates; often on "historically disturbed" site.
Small's southern clarkia *Clarkia australis*	--;--;1B	Cismontane woodland, lower montane coniferous forest. Occurs on rocky sites in conifer forest or oak woodland. 900-2060M.
beaked clarkia *Clarkia rostrata*	--;--;1B	Cismontane woodland, valley and foothill grassland. North-facing slopes, sometimes on sandstone. 60-460M.
Mariposa cryptantha *Cryptantha mariposae*	--;--;1B	Chaparral on serpentine outcrops.200-650M.
Tuolumne button-celery *Eryngium pinnatisectum*	--;--;1B	Vernal pools, cismontane woodland, lower montane coniferous forest. Volcanic soils; vernal pools and mesic sites within other natural communities. 250-450M.
Delta button-celery *Eryngium racemosum*	--;CE;1B	Riparian scrub. Seasonally inundated floodplain on clay. 3-75M.
spiny-sepaled button-celery *Eryngium spinosepalum*	--;--;1B	Vernal pools, valley and foothill grassland, some sites on clay soil of granitic origin, vernal pools within grassland. 100-420M.
Parry's horkelia *Horkelia parryi*	--;--;1B	Chaparral, cismontane woodland. Openings in chaparral or woodland; especially known from Ione formation in Amador County. 80-1035M.
Ahart's dwarf rush *Juncus leiospermus var. ahartii*	--;--;1B	Vernal pools, restricted to the edges of vernal pools. 30-100M.
Congdon's lomatium *Lomatium congdonii*	--;--;1B	Cismontane woodland, chaparral, serpentine soils with serpentine chaparral plants and grey pines. 300-610M.
Stebbins' lomatium *Lomatium stebbinsii*	--;--;1B	Lower montane coniferous forest, chaparral. Thin gravelly volcanic clay in open yellow pine forest. Grows where other vegetation is absent. 1235-1850M.
yellow-lip pansy monkeyflower *Mimulus pulchellus*	--;--;1B	Lower montane coniferous forest, meadows and seeps. Sandy decomposed granite soils and moist meadows; vernally wet sites. 600-2000M.
Whipple's monkeyflower *Mimulus whipplei*	--;--;1A	Lower montane coniferous forest, hillsides and rocky places in yellow pine forest. One site known. 670M.
pincushion navarretia *Navarretia myersii* ssp. *myersii*	--;--;1B	Vernal pools, valley and foothill grassland. Clay soils within nonnative grassland. 20-330M.
Invertebrates		

SPECIES	*STATUS*	*HABITAT*
vernal pool fairy shrimp *Branchinecta lynchi*	FE;--	Endemic to the grasslands of the central valley, central coast mtns., and south coast mtns, in astatic rain-filled pools. Inhabit small, clear-water sandstone depression pools and grassed swale, earth slump, or basalt flow depression pools.
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT;--	Associate with its host plant, the elderberry (Sambucus sp.).
Amphibians/Reptiles		
California tiger salamander *Ambystoma californiense*	FT;CT/CSC	Grassland habitats associated with long-lasting rain pools such as vernal pools or seasonal wetlands for breeding. Also needs ground refuges such as ground squirrel burrows.
western pond turtle *Emys marmorata*	--;CSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg laying.
foothill yellow-legged frog *Rana boylii*	--;CSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.
California red-legged frog *Rana draytonii*	FT;CSC	Lowlands and foothills in or near permanent lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks or permanent water for larval development. Must have access to estivation habitat.
Sierra Nevada yellow-legged frog *Rana sierrae*	FC;CSC	Always encountered within a few feet of water. Tadpoles may require 2-4 years to complete their aquatic development.
western spadefoot *Spea hammondii*	--;CSC	Occurs primarily in grassland habitats, but can be found in valley foothill hardwood woodlands. Vernal pools are essentially for breeding and egg-laying.
Birds		
northern goshawk *Accipiter gentilis*	--;CSC	Within, and in vicinity of, coniferous forest. Uses old nests, and maintains alternate sites. Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine and aspens are typical nest trees.
Tricolored blackbird *Agelaius tricolor*	--;CSC	Highly colonial species, most numerous in central valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.
bald eagle *Haliaeetus leucocephalus*	FD;CE	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within one mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.
Raptors (birds of prey; falcons, hawks, owls, etc.) and other migratory and resident birds	MBTA; §3503.5 DFG Code	Large trees and riparian woodlands for nesting.
Mammals		
pallid bat *Antrozous pallidus*	--;CSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.
Townsend's big-eared bat *Corynorhinus townsendii*	--;CSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from wall and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.
western mastiff bat *Eumops perotis californicus*	--;CSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.
western red bat	--;CSC	Roosts primarily in trees, 2-40 ft above ground, from sea level up

SPECIES	*STATUS*	*HABITAT*
Lasiurus blossevillii		through mixed conifer forests. Prefers habitat edges and mosaics with threes that are protected from above and open below with open areas for foraging.
Pacific fisher *Martes pennanti* (*pacifica*) DPS	FC;CSC	Intermediate to large tree stages of coniferous forests & deciduous riparian areas with high percent canopy closure. Uses cavities, snags, logs & rocky areas for cover & denning. Needs large areas of mature, dense forest.

SOURCE: DFG CNDDB 2012

Abbreviations:

FE	Federal Endangered
FT	Federal Threatened
FC	Federal Candidate
FPD	Federal proposed for delisting
FPT	Federal proposed threatened
FD	Federal delisted
MBTA	Protected by Migratory Bird Treaty Act
CE	California Endangered Species
CT	California Threatened
CR	California Rare (Protected by Native Plant Protection Act)
CSC	CDFG Species of Special Concern
CC	State candidate for listing
1B	CNPS - Rare, Threatened, or Endangered

RESPONSES TO CHECKLIST QUESTIONS

Response a): The California Natural Diversity Data Base (CNDDB) search identified 36 documented special-status species within the County: 20 plants, 16 wildlife. One species is presumed extinct, while all others are presumed present at any given time throughout their habitat range. Some species require localized micro-habitats, while others are highly mobile and may occur throughout the County. Many of the documented special-status species may be directly or indirectly affected by RTP projects within the County if the improvements are to encroach on the species' habitat, or movement corridors. Table 6 above provides a list of these species including their habitat, and current protective status.

Construction and maintenance activities associated with the individual projects could result in the direct loss or indirect disturbance of special-status wildlife species or their habitats that are known to occur, or have potential to occur, in the County. Impacts on special-status wildlife species or their habitat could result in a reduction in local population size, lowered reproductive success, or habitat fragmentation. Potential affects on special-status wildlife species associated with individual projects include:

- increased mortality caused by higher numbers of automobiles on new or widened roads;
- direct mortality from the collapse of underground burrows, resulting from soil compaction;
- direct mortality resulting from the movement of equipment and vehicles through the Project area;
- direct mortality resulting from removal of trees with active nests;
- direct mortality or loss of suitable habitat resulting from the trimming or removal of obligate host plants;
- direct mortality resulting from fill of wetlands features;
- loss of breeding and foraging habitat resulting from the filling of seasonal or perennial wetlands;
- loss of breeding, foraging, and refuge habitat resulting from the permanent removal of riparian vegetation;

- loss of suitable habitat for vernal pool invertebrates resulting from the destruction or degradation of vernal pools or seasonal wetlands;
- abandoned eggs or young and subsequent nest failure for special-status nesting birds, including raptors, and other non-special status migratory birds resulting from construction-related noises;
- loss or disturbance of rookeries and other colonial nests;
- loss of suitable foraging habitat for special-status raptor species; and
- loss of migration corridors resulting from the construction of permanent structures or features.

The design process for each improvement will involve a level of field reconnaissance to precisely identify the potential for impacts to special status species and to identify project specific design measures that can be employed to avoid or lessen an impact. Project specific design measures may include alternative designs to avoid habitats that are considered more sensitive and required for special status species. An impact would occur if a project would result in a take of a special status species or their habitat. If a project would in fact result in a take of a special status species or their habitat it may be required to go through a consultation process with the USFWS and/or CDFG for recommendations to avoid or lessen the impacts to these species and their habitats.

Permits may also be required from the USFWS and/or CDFG, and possibly by the local governments if a project design cannot avoid disturbance to special status species or their habitat. Permits are issued by regulatory agencies with conditions that are designed to mitigate the impact to the extent practicable. The proposed project does not directly cause an impact to special status species and the design process for individual improvements listed in the proposed project would require that each project be consistent with the policies that are established in the County and City General Plan for the purpose of protecting biological resources, including special status species that their habitat.

Consistency with the County and City policies as well as adopted federal and state regulations that protect special-status species, including their habitat and movement corridors, would ensure that appropriate design measures, including avoidance, if appropriate, are incorporated into the design of each improvement project. Because the proposed project is a planning document and thus, no physical changes will occur to the environment, adoption of the proposed project would not directly impact the environment. There is a possibility that special status species will be affected by a transportation project identified in the proposed project due to the extent of special status species throughout the region. The following mitigation measure would ensure that all future projects are designed to avoid sensitive biological resources to the greatest extent feasible. Where full avoidance is not possible, the participation in pre-established habitat and special status species protection programs would reduce the impact. Implementation of the following mitigation measure would reduce the impact to a ***less than significant*** level.

> ***Mitigation Measure 6:*** *Prior to final design approval of RTP projects, the implementing agency shall take steps to identify and protect any biological resources associated with the project. Potential steps could include, but shall not be limited to, the following:*
>
> - *Employ the services of a qualified biologist to conduct a field reconnaissance of the limits of the project area to identify special status plants, animals, and their habitats, as well as protected natural communities including wetland and terrestrial communities. If the biologist identifies*

protected biological resources within the limits of the project area, the implementing agency should do the following:

- *Consider alternative designs that seek to avoid and/or minimize impacts to the biological resources.*
- *If the project cannot be designed to completely avoid, the implementing agency should coordinate with the appropriate regulatory agency (i.e. USFWS, NMFS, CDFG, ACOE) to obtain regulatory permits and implement project-specific mitigation prior to any construction activities.*

Response b-c): The County contains a variety of natural communities that are generally considered sensitive, such as riparian, oak woodland, streams, rivers, wet meadows, and vernal pools. Streams, rivers, wet meadows, and vernal pools (wetlands and jurisdictional waters) are of high concern because they provide unique aquatic habitat (perennial and ephemeral) for many endemic species, including special-status plants, birds, invertebrates, and amphibians. These aquatic habitats oftentimes qualify as protected wetlands or jurisdictional waters and are protected from disturbance through the CWA.

The County contains numerous aquatic habitats that qualify as federally protected wetlands and jurisdictional waters. Section 404 of the CWA requires any project that involves disturbance to a wetland or water of the U.S. to obtain a permit that authorizes the disturbance. If a wetland or jurisdictional water is determined to be present, then a permit must be obtained from the USACE to authorize a disturbance to the wetland. Although subsequent improvements may disturb protected wetlands and/or jurisdictional waters, the regulatory process that is established through Section 404 of the CWA ensures that there is "no net loss" of wetlands or jurisdictional waters. If, through the design process, it is determined that an improvement project cannot avoid a wetland or jurisdictional water, then the USACE would require that there be an equal amount of wetland created elsewhere to mitigate any loss of wetland.

The County contains two CDFG designated sensitive natural communities including: Big Trees Forest and Ione Chaparral. The CDFG has also designated a portion of Calaveras County as Critical Winter Range Habitat for the migratory California mule deer (*Odocoileus hemionus californicus*).

The National Oceanic and Atmospheric Administration (NOAA) has designated critical habitat in the County for the Central Valley steelhead. The U.S. Fish and Wildlife Service has designated critical habitat in Calaveras County for the California tiger salamander.

Construction activities associated with individual projects will occur across a variety of habitats and such activities could result in the disturbance to the habitat. It is not anticipated that any individual project would affect the critical habitat designated for Central Valley steelhead or California tiger salamander. It is possible that an individual project could affect the designated Critical Winter Range Habitat because it spans such a broach portion of the County. Additionally, there is a possibility that natural communities, including wetlands, riparian, sensitive natural communities, will be affected by individual projects.

Detailed plans of the individual projects have not been developed. Consistency with the applicable County and City policies and federal and state regulations would ensure that appropriate design measures, including avoidance, if appropriate, are incorporated into the design of each improvement project. Because the proposed project is a planning document and

thus, no physical changes will occur to the environment, adoption of the proposed project would not directly impact the environment. Implementation of the following mitigation measures, as well as those previously presented, would ensure that all future individual projects are designed to avoid sensitive habitat to the greatest extent feasible. Where full avoidance is not possible, the participation in pre-established habitat protection programs or state/federal permit mitigation programs would offset any potential impacts associated with project implementation. Adherence to the requirements in these mitigation measures would reduce this impact to a ***less than significant*** level.

> ***Mitigation Measure 7:*** *Prior to construction, the implementing agency shall take steps to identify and protect environmentally sensitive areas around habitat. Avoidance, minimization, and mitigation measures would be determined by a qualified professional in consultation with the appropriate resource agencies. All stabilization efforts should use accepted best practices and materials. Construction specification should include the following wording:*
>
> > *"The Contractor's attention is directed to the areas designated as "environmental sensitive areas." These areas are protected, and no entry by the Contractor for any purpose will be allowed unless specifically authorized in writing by the Contracting Agency. The Contractor will take measures to ensure that Contractor's forces do not enter or disturb these areas, including giving written notice to employees and subcontractors."*

Response d): There are many native fish and wildlife species within the County that migrate or utilize movement corridors. The most notable for their protection status include the Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead trout (*Oncorhynchus mykiss*). The California mule deer (*Odocoileus hemionus californicus*) is a migratory wildlife species that is not recognized as a special-status species, but preserving deer habitat and migration corridors is of concern to the CDFG in many foothill and mountainous regions of California including Calaveras County.

Salmon and Steelhead. Salmon and steelhead trout are anadromous fish species that are present in the San Joaquin and Sacramento River Basins. These River systems have historically supported steelhead trout and four distinct spawning runs of Chinook salmon: fall, late fall, winter, and spring. The fall/late fall-run Chinook salmon is a federal and state species of concern, and a candidate species for federal listing. The spring-run Chinook salmon population is listed as threatened by both federal and state agencies. Winter-run Chinook salmon population is listed as a federally and state endangered species. The Central Valley steelhead was federally listed as threatened in 2003. There is a section of the Calaveras River below the New Hogan Dam that is designated as critical habitat for steelhead.

Riparian habitat is critical for the maintenance of high quality fish habitat. It provides cover, controls temperature, stabilizes stream banks, provides food, and buffers streams from erosion and impacts of adjacent land uses. Riparian vegetation also affects stream depth, current velocity, and substrate composition. It will be important that each individual project include a review of the potential for impacts to riparian habitat, which is critical for the maintenance of high quality fish habitat.

Migratory Deer. The Railroad Flat Deer Herd is a migratory herd of predominately California mule deer (*Odocoileus hemionus californicus*) that travel across approximately 550 square miles of land in the central Sierras annually. The herd's annual migratory route takes thousands of animals from the high elevation pine and fir forests of their summer range in Alpine County to the winter range, spring and fall holding areas, and fawning areas in the open oak woodland and oak savanna of the lower foothills and higher elevation timberlands of central and eastern

Calaveras County. Portions of these areas have been designated as Critical Winter Range Habitat by the California Department of Fish and Game (CDFG). Nearly 80 percent of the critical winter range is on privately held land. There are at least 6,700 acres in Fish and Game Conservation Easements in Calaveras County that protect the winter range of the herd.

Linear transportation improvements can cause fragmentation of habitat where species can no longer easily move through an area. This may occur in cases where a linear transportation improvement includes a center barrier to be erected that suddenly affects the ability of a smaller animal, and sometimes, less mobile species, to cross the linear transportation corridor to areas that they previously frequented.

In addition certain fence designs are barriers to deer movement, particularly to does and fawns. Deer-proof or deer-resistant fences around large acreages in winter range and across critical deer migration corridors result in a significant adverse impact on deer populations. Also, the creation of highways and roads are a source of deer mortality.

Conclusion. There are no individual RTP projects that are proposed in the vicinity of the portion of the Calaveras River that is designated as critical habitat for steelhead and there are no direct impacts to steelhead or salmon anticipated from individual projects. There is a reasonable chance that native wildlife or wildlife corridors, including migratory deer, will be impacted throughout the buildout of individual projects under the RTP.

The individual projects have not been designed or approved. Each project will be designed consistent with the applicable County and City policies to ensure that appropriate design measures are incorporated into the design of each project. The following mitigation measure would ensure that all future projects are designed to facilitate the movement of sensitive species to the greatest extent feasible. Where full design mitigation is not feasible, compliance with state and federal permit requirements would offset any potential impacts associated with project implementation. Adherence to the requirements this mitigation measure would reduce this impact to a ***less than significant*** level.

> ***Mitigation Measure 8:*** *Prior to design approval of individual projects, the implementing agency will incorporate economically viable design measures, as applicable and necessary, to allow wildlife or fish to move through the transportation corridor, both during construction activities and post construction. Potential measures could include, but shall not be limited to the following:*
>
> - *Appropriately spaced breaks in a center barrier,*
> - *Other measures that are designed to allow wildlife to move through the transportation corridor.*
>
> *If the project cannot be designed with these design measures (i.e. due to traffic safety, etc.) the implementing agency should coordinate with the appropriate regulatory agency (i.e. USFWS, NMFS, CDFG) to obtain regulatory permits and implement alternative project-specific mitigation prior to any construction activities.*

Response e): The proposed project does not conflict with local policies or ordinances protecting biological resources. Implementation of the proposed project would have ***no impact*** relative to this issue.

Response f): Calaveras County does not have an applicable habitat conservation plan or natural community conservation plan. Implementation of the proposed project would have ***no impact*** relative to this issue.

V. CULTURAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		

BACKGROUND

Prehistoric Archaeological Resources

Previous surveys and site investigations in Calaveras County indicate that the prehistoric site types that may be encountered throughout unsurveyed portions of the County may encompass:

- Surface scatters of lithic artifacts associated with or without associated midden accumulations, resulting from short-term occupation, and/or specialized economic activities, or long-term occupation.
- Bedrock milling stations, including mortar holes and metate slicks, in areas where suitable bedrock outcrops are present.
- Petroglyphs and/or pictographs.
- Isolated finds of cultural origin, such as lithic flakes and projectile points.
- Deeply buried sites dating to Archaic periods.
- Ceremonial sites and site of cultural significance.
- Traditional resource gathering sites.

Historic Resources

There are an extensive number of historic properties in the County that have been identified through historic building surveys and previous cultural resource studies. Some of these properties are either listed on or found eligible for listing in the National Register of Historic Places.

Previous surveys and site investigations in Calaveras County indicates that the historic archaeological site types that may be encountered throughout the County may encompass:

- Historic artifact features and buried deposits of historic debris and artifacts.
- Building foundations and associated deposits (homes, businesses, barns, mines, mills, etc).
- Mining remains (shafts, adits, waste rock, tailings)
- Water related (ditches, dams, reservoirs, penstocks)
- Transportation (roads, trails, railways)
- Ranching and Agriculture (terracing, fences, corrals, water troughs)

RESPONSES TO CHECKLIST QUESTIONS

Response a): Implementation of RTP projects may occur near or in close vicinity to architectural resources (buildings/structures/features) that are 50 years old or older. Given the age of these resources, it is possible they are historically significant and eligible for listing in the California Register of Historic Resources (CRHR) or the National Register of Historic Places (NRHP). As RTP projects are designed and reviewed by local jurisdictions, the RTP projects will undergo technical analysis to evaluate any potential impacts to historical resources within their area of potential effect.

Based upon the general planning nature of the RTP, development of detailed, site-specific information on this impact at this planning level is not feasible. However, damage to or destruction of historical resources that are considered significant under local, state, or federal criteria would be a significant impact. Implementation of the following mitigation measure would ensure that all subsequent RTP projects either avoid known historical resources, or take steps to implement amelioration methods to reduce impacts to known historical resources. This mitigation measure would also require investigations and avoidance methods in the event that a previously undiscovered historical resource is encountered during construction activities. This mitigation measure would reduce this impact to a ***less than significant*** level.

> ***Mitigation Measure 9:*** *During environmental review of RTP projects, and prior to construction, if architectural resources are deemed as potentially eligible for the California Register of Historic Resources or the National Register of Historic Places as determined by a qualified architectural historian, the implementing agencies will:*
>
> - *Consider avoidance through project redesign as feasible.*
> - *If avoidance is not feasible, the implementing agencies will request that the historic resource is formally documented through the use of large-format photography, measured drawings, written architectural descriptions, and historical narratives.*
> - *The documentation should be entered into the Library of Congress, and archived in the California Historical Resources Information System.*
> - *In the event of building relocation, the implementing agency shall ensure that any alterations to significant buildings or structures conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings.*

Response b): Implementation of most of the RTP improvements would be constructed within the existing rights-of-way. Improvements and modifications within existing rights-of-way would have less potential to encounter previously unknown archaeological resources relative to projects in undisturbed areas since the former right-of-way areas have already been disturbed. Improvements and modifications within existing rights-of-way still have potential to adversely affect archaeological resources, either directly or indirectly. As RTP projects are designed and reviewed by local jurisdictions, the RTP projects will undergo technical analysis to evaluate any potential impacts to cultural resources within their area of potential effect. Only a small number of RTP projects would be constructed in previously undisturbed areas.

Based upon the general planning nature of the RTP, development of detailed, site-specific information on this impact at this planning level is not feasible. However, damage to or destruction of archaeological resources that are considered significant under local, state, or federal criteria would be a significant impact. Implementation of the following mitigation

measures would ensure that all subsequent RTP projects either avoid known cultural or historical resources, or take steps to implement amelioration methods to reduce impacts to known cultural or historical resources. These mitigation measures would also require investigations and avoidance methods in the event that a previously undiscovered cultural or historical resource is encountered during construction activities. These mitigation measures would reduce this impact to a ***less than significant*** level.

Mitigation Measure 10: *During environmental review of RTP projects, the implementing agencies shall consult with the Native American Heritage Commission to determine whether known sacred sites are in the project area. If recommended, a qualified archaeologist should be consulted to conduct archaeological surveys. The significance of any resources that are determined to be in the project area shall be assessed according to the applicable local, state, and federal significance criteria.*

Mitigation Measure 11: *During construction of RTP projects, the implementing agencies shall take steps to identify and protect cultural materials. The implementing agencies and the contractors performing the improvements could implement the following: requirements:*

- *If a project is located in an area rich with cultural materials, the implementing agency shall retain a qualified archaeologist to monitor any subsurface operations, including but not limited to grading, excavation, trenching, or removal of existing features of the subject property.*
- *If, during the course of construction cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts and features) are discovered work shall be halted immediately within 50 meters (165 feet) of the discovery, the implementing agency shall be notified, and a qualified archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to determine the significance of the discovery.*
- *The implementing agency shall consider mitigation recommendations presented by a professional archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology for any unanticipated discoveries and shall carry out the measures deemed feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The project proponent shall be required to implement any mitigation necessary for the protection of cultural resources.*

Response c): Most of the RTP improvements would be constructed within the existing rights-of-way, which is generally considered to have less potential to encounter previously unknown paleontological resources relative to projects in undisturbed/undeveloped areas. However, improvements and modifications within existing rights-of-way still have the potential to damage or destroy undiscovered paleontological resources especially during deeper excavations.

Based upon the general planning nature of the RTP, development of detailed, site-specific information on this impact at this planning level is not feasible. However, damage to or destruction of paleontological resources that are considered significant under local, state, or federal criteria would be a significant impact. Implementation of the following mitigation measure would ensure that all subsequent RTP projects either avoid known paleontological resources, or take steps to implement amelioration methods to reduce impacts to known paleontological resources. This mitigation measure would reduce this impact to a ***less than significant*** level.

Mitigation Measure 12: *During environmental review of RTP projects, the implementing agencies shall take steps to identify and protect paleontological resources. When the project scope and/or location*

indicate potential impacts to paleontological resources, the implementing agency should retain a qualified paleontologist to identify resources and potential impacts and to determine appropriate avoidance, minimization, and mitigation measures.

Response d): Indications are that humans have occupied Calaveras County for at least 10,000 years and it is not always possible to predict where human remains may occur outside of formal burials. Therefore, excavation and construction activities, regardless of depth, may yield human remains that may not be interred in marked, formal burials. Under CEQA, human remains are protected under the definition of archaeological materials as being "any evidence of human activity." Additionally, Public Resources Code Section 5097 has specific stop-work and notification procedures to follow in the event that human remains are inadvertently discovered during Project implementation. Implementation of the following mitigation measure would ensure that all subsequent RTP project construction activities that inadvertently discover human remains implement state required consultation methods to determine the disposition and historical significance of any discovered human remains. This mitigation measure would reduce this impact to a ***less than significant*** level.

Mitigation Measure 13: *In the event of discovery or recognition of any human remains during construction or excavation activities associated with an RTP project, the implementing agency shall cease further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the following steps are taken:*

- *The Calaveras County Coroner has been informed and has determined that no investigation of the cause of death is required.*
- *If the remains are of Native American origin, either of the following steps will be taken:*
    - *The coroner should contact the Native American Heritage Commission in order to ascertain the proper descendants from the deceased individual. The coroner will make a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, which may include obtaining a qualified archaeologist or team of archaeologists to properly excavate the human remains.*
    - *The implementing agency may retain a Native American monitor, an/or an archaeologist to assist in disposing of, with appropriate dignity, the human remains and any associated grave goods when any of the following conditions occurs:*
        - *The Native American Heritage Commission is unable to identify a descendent.*
        - *The descendant identified fails to make a recommendation.*
        - *The implementing agency or its authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.*

VI. GEOLOGY AND SOILS

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*No Impact*
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.		X		
ii) Strong seismic ground shaking?		X		
iii) Seismic-related ground failure, including liquefaction?		X		
iv) Landslides?		X		
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		X		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X

BACKGROUND

Regional Geology

Calaveras County lies within the geologic region of California referred to as the Sierra Nevada geomorphic province. The Sierra Nevada geomorphic province is a tilted fault block almost 400 miles long. The province extends from the eastern slope to the western slope of the Sierra Nevada Mountains. Calaveras County is located on the western slope of the Sierra Nevada. Though no major river or glaciated canyons are found within the County, the western slope of the Sierra Nevada is marked by these canyons, including the scenic Yosemite Valley located south of the County. This province overlies metamorphic bedrock that contains gold-bearing veins in the northwest trending Mother Lode. The Mother Lode region in the Sierra Nevada extends from El Dorado County, passes through Calaveras County, and terminates in Mariposa County.

Seismicity

The geographic distribution of earthquake activity is referred to as seismicity. Seismicity can result in hazards caused by fault displacement and rupture, ground shaking, liquefaction, lateral spreading, and landslides. Seismicity is generally measured based on the amount of energy released at a fault.

The County lies within Seismic Risk Zone 3, which poses a lesser risk than those experienced in Zone 4 (such as the San Francisco Bay Area located 100 miles away). The estimated maximum (moment) magnitudes (Mw) represent characteristic earthquakes on particular faults. The County may be affected by regionally occurring earthquakes; however, impacts resulting from such an event would be less in nature than those experienced in the Bay Area.

Fault Systems

Seismicity is directly related to the distribution of fault systems within a region. Depending on activity patterns, faults and fault-related geologic features may be classified as active, potentially active, or inactive. The nearest potentially active faults (Quaternary/Late Quaternary) are within the Bear Mountains Fault Zone and Melones Fault Zone, which pass through the western portion of the County. Potentially active faults near Valley Springs and Mokelumne Hill include Youngs Creek, Waters Peak, Poorman Gulch, and Haupt Creek faults. Potentially active faults near Copperopolis include Bowie Flat, Green Springs Run, Rawhide Flat East, and Rawhide Flat West faults. There is little information known about these faults other than their potential for activity. Additionally, the Foothills Fault System is considered potentially active and passes through the western portion of the County. The Foothills Fault System has a maximum moment magnitude of 6.5.

The nearest active fault outside of Calaveras County is the Genoa fault, also known as the Carson Valley fault, which is 25 miles northeast of the County. The Genoa fault has an estimated maximum moment magnitude of 6.9. Other identified potentially active faults outside the county include the Vernalis fault, approximately 40 miles west of the County, and the Antelope Valley and Slinkard Valley faults, which are located near the Genoa fault.

Seismic Hazards

Seismic Ground Shaking. The potential for seismic ground shaking in California is expected. As a result of the foreseeable seismicity in California, the State requires special design considerations for all structural improvements in accordance with the seismic design provisions in the California Building Code. These seismic design provisions require enhanced structural integrity based on several risk parameters.

Fault Rupture. A fault rupture occurs when the surface of the earth breaks as a result of an earthquake, although this does not happen with all earthquakes. These ruptures generally occur in a weak area of an existing fault. Ruptures can be sudden (i.e. earthquake) or slow (i.e. fault creep). The Alquist-Priolo Fault Zoning Act requires active earthquake fault zones to be mapped and it provides special development considerations within these zones. Calaveras County does not have any Alquist-Priolo Earthquake Fault Zones and the risk of surface fault rupture within the County is considered low

Liquefaction. Liquefaction typically requires a significant sudden decrease of shearing resistance in cohesionless soils and a sudden increase in water pressure, which is typically associated with an earthquake of high magnitude. The potential for liquefaction is highest when

groundwater levels are high, and loose, fine, sandy soils occur at depths of less than 50 feet. Calaveras County is not considered to be at a high risk from liquefaction hazards.

Lateral Spreading. Lateral spreading typically results when ground shaking moves soil toward an area where the soil integrity is weak or unsupported, and it typically occurs on the surface of a slope, although it does not occur strictly on steep slopes. Oftentimes, lateral spreading is directly associated with areas of liquefaction. Calaveras County is considered to be at a low risk of hazards of lateral spreading.

Landslides. Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building (i.e. cut and fill). There are areas throughout the County with slopes greater then 20 percent, which increases the risk of landslides in the event of a high amount of rainfall or snowmelt. Generally speaking, potential for landslides is higher in the eastern portion of the County where there are more slopes that are 20 percent or greater. Landslides are considered remote in the valley floors areas due to the lack of significant slopes.

Erosion

Erosion naturally occurs on the surface of the earth as surface materials (i.e. rock, soil, debris, etc.) is loosened, dissolved, or worn away, and transported from one place to another by gravity. Two common types of soil erosion include wind erosion and water erosion. The steepness of a slope is an important factor that affects soil erosion. Erosion potential in soils is influenced primarily by loose soil texture and steep slopes. Loose soils can be eroded by water or wind forces, whereas soils with high clay content are generally susceptible only to water erosion. The potential for erosion generally increases as a result of human activity, primarily through the development of facilities and impervious surfaces and the removal of vegetative cover. Calaveras County contains a wide range of soils that have varying levels of susceptibility to erosion, ranging from slight to extremely high.

RESPONSES TO CHECKLIST QUESTIONS

Responses a.i-ii): There are numerous potentially active faults located within the County; however, there are no Alquist-Priolo Earthquake Fault Zones. There will always be a chance that a fault located anywhere in the state (or region) could rupture and cause seismic ground shaking. All projects would be required to conduct seismic hazard evaluations and comply with all appropriate Building Code provisions. The following mitigation measure would require individual projects to include appropriate seismic designs to accommodate the potential for seismicity. This mitigation measure would reduce this impact to a ***less than significant*** level.

> ***Mitigation Measure 14:*** *Prior to approval of structure plans for individual projects, the implementing agency shall ensure that a project specific seismic hazard evaluation is prepared to address seismic constraints. Where a seismic constraint is identified, appropriate design methods, in accordance with the California Building Code, shall be incorporated into the structure design to fully address any seismic constraint.*

Response a.iii-iv), c): Liquefaction typically requires a significant sudden decrease of shearing resistance in cohesionless soils and a sudden increase in water pressure, which is typically associated with an earthquake of high magnitude. From a regional perspective, the soils located within the County are considered to have a low potential for liquefaction. There is a potential for soil inclusions that have a higher liquefaction potential. The highest risk for liquefaction is expected along rivers, creeks, and drainages within the County.

There are areas throughout the County that are prone to landslides. In particular, the eastern portion of the County has a higher probability of landslides based on the steeper slopes. There will be an ongoing potential for eastern areas of the County to be or become unstable and result in landslides at some time.

The following mitigation measure would require each improvement project to have a specific geotechnical study prepared and incorporated into the improvement design. The geotechnical study would identify specific soil conditions, surface and subsurface drainage capability, slope steepness, and other factors that may contribute to landslide risk as well as soil inclusions that pose a higher risk of liquefaction. The geotechnical study would provide recommendations for mitigating any potential risk associated with site specific conditions. This mitigation measure would reduce this impact to a ***less than significant*** level.

> ***Mitigation Measure 15:*** *Prior to approval of improvement plans for individual projects, the implementing agency shall prepare a project specific geotechnical report to address geotechnical constraints. Where a geotechnical constraint is identified, appropriate and proven geotechnical engineering methods shall be incorporated into the project design to fully address the geotechnical constraint.*

Responses b): As discussed in (a.iv) above, there are areas throughout the County that have steeper slopes where the potential for loss of topsoil and erosion is relatively high. Some of the individual projects would involve some land clearing, mass grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. Construction-related erosion could result in the loss of a substantial amount of nonrenewable topsoil and could adversely affect water quality in nearby surface waters.

The following mitigation measure requires a project specific Storm Water Pollution Prevention Plan (SWPPP) to be prepared for each project that disturbs an area one acre or larger. The SWPPPs will include project specific best management measures that are designed to control drainage and erosion. Furthermore, each individual project will include detailed project specific drainage plans that control storm water runoff and erosion, both during and after construction. The SWPPP and the project specific drainage plans would reduce the potential for erosion. This mitigation measure would reduce this impact to a ***less than significant*** level.

> ***Mitigation Measure 16:*** *The implementing agency shall take steps to comply with NPDES General Construction Permit requirements to reduce or eliminate construction-related water quality effects. The implementing agency shall prepare a SWPPP during construction. The CCOG shall use appropriate procedures to monitor and evaluate SWPPP compliance. Potential measures may include:*
>
> - *Temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary re-vegetation or other ground cover).*

Responses d): Expansive soils are those that shrink or swell with the change in moisture content. The volume of change is influenced by the quantity of moisture, by the kind and amount of clay in the soil, and by the original porosity of the soil. Shrinking and swelling can damage roads and other structures unless special engineering design is incorporated into the project plans.

As identified in a previous mitigation measure, each individual project would be required to have a specific geotechnical study prepared and incorporated into the design. The geotechnical

study would identify the specific soil conditions that may contribute to soil expansion. Based on specific findings at each locality, the geotechnical engineer will recommend detailed engineering measures that are necessary to reduce the risks associated with soil expansion. Implementation of project specific geotechnical engineering measures would reduce the risks from soil expansion to a reasonable level for individual projects. Implementation of the RTP itself would result in a ***less-than-significant*** impact on soil expansion.

Responses e): The RTP would not result in the generation of sewer water or the expansion of septic infrastructure. Implementation of the proposed project would have ***no impact*** on this environmental issue.

XII. GREENHOUSE GAS EMISSIONS

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?		X		
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?			X	

BACKGROUND

Greenhouse Gases and Climate Change Linkages

Various gases in the Earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation.

GHG, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs).

Human-caused emissions of these GHGs, in excess of natural ambient concentrations, are responsible for enhancing the greenhouse effect. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation.

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California is the 12th to 16th largest emitter of CO_2 in the world and produced 492 million gross metric tons of carbon dioxide equivalents in 2004.

Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2004, accounting for 40.7% of total GHG emissions in the state. This category was followed by the electric power sector (including both in-state and out of-state sources) (22.2%) and the industrial sector (20.5%).

Effects of Global Climate Change

The effects of increasing global temperature are far reaching and extremely difficult to quantify. The scientific community continues to study the effects of global climate change and has found that increases in the ambient global temperature as a result of increased GHGs is anticipated to result in rising sea levels, which could threaten coastal areas through accelerated coastal erosion. This also threatens levees and inland water systems and disruption to coastal wetlands and habitat.

If the temperature of the ocean warms, it is anticipated that the winter snow season would be shortened. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the state. According to a California Energy Commission report, the snowpack portion of the supply could potentially decline by 70% to 90% by the end of the 21st century. This phenomenon could lead to significant challenges securing an adequate water supply for a growing state population. Further, the increased ocean temperature could result in increased moisture flux into the state; however, since this could increasingly come in the form of rain rather than snow in the high elevations, increased precipitation could lead to increased potential and severity of flood events, placing more pressure on California's levee/flood control system.

Sea level has risen approximately seven inches during the last century and, according to the CEC report, it is predicted to rise an additional 22 to 35 inches by 2100, depending on the future GHG emissions levels. If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion and disruption of wetlands. As the existing climate throughout California changes over times, mass migration of species, or failure of species to migrate in time to adapt to the perturbations in climate, could also result. Under the emissions scenarios of the Climate Scenarios report, the impacts of global warming in California are anticipated to include, but are not limited to, the following.

Public Health

Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation are projected to increase from 25 to 35 percent under the lower warming range, to 75 to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55 percent more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures will increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts capture and transport water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snow pack to supply water during the dry spring and summer

months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snow pack, increasing the risk of summer water shortages.

The state's water supplies are also at risk from rising sea levels. An influx of saltwater would degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta, a major state fresh water supply. Global warming is also projected to seriously affect agricultural areas, with California farmers projected to lose as much as 25 percent of the water supply they need; and decrease the potential for hydropower production within the state (although the effects on hydropower are uncertain).

If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snow pack by as much as 70 to 90 percent. Under the lower warming scenario, snow pack losses are expected to be only half as large as those expected if temperatures were to rise to the higher warming range. How much snow pack will be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snow pack would pose challenges to water managers, and hamper hydropower generation.

Agriculture

Increased GHG emissions are expected to cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. Although higher carbon dioxide levels can stimulate plant production and increase plant water-use efficiency, California's farmers will face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development will change, as will the intensity and frequency of pest and disease outbreaks. Rising temperatures could worsen ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products that could be most affected include wine grapes, fruits and nuts, and milk.

In addition, continued global warming could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued global warming could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global warming is expected to intensify this threat by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. For example, if precipitation increases as temperatures rise, wildfires in southern California are expected to increase by approximately 30 percent toward the end of the

century. In contrast, precipitation decreases could increase wildfires in northern California by up to 90 percent.

Moreover, continued global warming will alter natural ecosystems and biological diversity within the state. For example, alpine and sub-alpine ecosystems are expected to decline by as much as 60 to 80 percent by the end of the century as a result of increasing temperatures. The productivity of the state's forests is also expected to decrease as a result of global warming.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the state's coastal regions. Under the higher warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

RESPONSES TO CHECKLIST QUESTIONS

Response a): CCOG's ability to address and mitigate climate change impacts is limited primarily to policy and funding decisions related to planned roadway and alternative transportation improvements. As described above, the combustion of fossil fuels during vehicle operations is the primary source of GHG emissions in California. GHG emissions also result from the carbon dioxide, methane, and nitrous dioxide that are released during the combustion of gasoline and diesel fuel in construction equipment, vehicles, buses, trucks, and trains; and the use of natural gas to power transit buses and other vehicles. As discussed previously, historical and current global GHG emissions are known by the State and the global scientific community to be causing global climate change, and future increases in GHG emissions associated with the transportation sector could exacerbate climate change and contribute to the significant adverse environmental effects described previously. Furthermore, increased GHG emissions associated with the transportation sector could impact implementation of the State's mandatory requirement under AB 32 to reduce statewide GHG emissions to 1990 levels by 2020.

Methodology

CARB has prepared an official state-wide greenhouse gas emissions inventory that covers all sectors of emitters from 1990 through 2009, as well as forecasts through 2020. However, the official CARB greenhouse gas inventory is limited in its usefulness for regional transportation planning because it does not provide a breakdown of the inventory specific to a sector (i.e. transportation) within a region (i.e. a County). While EMFAC 2011 is not considered the official emissions inventory, it is the best tool available for estimating greenhouse gas emissions specific to the transportation sector in Calaveras County. As such, this analysis is based on an evaluation of emission trends using the EMFAC 2011. The EMFAC 2011 model, developed by the CARB, is the most recent vehicle emissions model recommended for use in California.

As previously discussed, GHG emissions result from the CO_2, methane, and nitrous dioxide that are released during the combustion of gasoline and diesel fuel vehicles. These gases are released during fossil fuel consumption, although methane, and nitrous dioxide are released in much smaller quantities than CO_2. They are also unlike CO_2 in that their emissions rates are affected by vehicle emissions control technologies. CO_2 represents over 96 percent of the greenhouse gas emissions within the transportation sector, while methane and nitrous dioxide only accounted for two percent. Because of these facts, this analysis focuses on the most relevant greenhouse gas emissions from vehicles, which is CO_2. Lastly, it should be noted that these estimates account for the benefits of Pavley and Low Carbon Fuel Standard regulations.

Regional Transportation Indicators

EMFAC 2011 was used to estimate the vehicle population, VMT, and trips in the years 1990, 2010, and the AB32 attainment year of 2020. Table 7 presents these regional transportation indicators.

Table 7: Regional Transportation Indicators

	1990	2010	2020
Vehicles	30,777	46,256	49,214
VMT/1000	994,507	1,475,189	1,672,306
Trips	186,294	306,586	326,322

SOURCE: EMFAC 2011 (2012).

Energy Consumption

CO_2 is released during the combustion of gasoline and diesel fuel from vehicles. Therefore, fuel consumption is a critical indicator for analyzing greenhouse gases. Vehicle fuel consumption was projected from a baseline year of 1990 through the AB32 attainment year of 2020. Table 8 shows the vehicle fuel consumption in gallons per day for this period. The projection shows an increase in total fuel consumption from 65,778 gallons per day in 1990 to 98,561 gallons in 2020. The fuel consumption trend is increasing, which is related to a projected increase in County-wide VMT as a result of projected growth. It is noteworthy that the rate of increase in fuel consumption (51 percent increase) is not linearly correlated to the rate of increase in vehicle miles traveled (32 percent increase). This is clearly seen in the per capita fuel consumption estimates, which are anticipated to decrease from 2.14 gal/day in 1990 to 2.0 gal/day in 2020 (seven percent decrease). This estimate is indicative of a vehicle fleet that is expected to become more fuel efficient throughout the planning horizon.

Table 8: County Vehicle Fuel Consumption (Gallons per Day)

Analysis Year	*Gasoline Consumption*	*Diesel Consumption*	*Total Fuel Consumption*	*Total Vehicles*	*Per Capita Fuel Consumption*
1990	61,376	4,402	65,778	30,777	2.14
2010	75,945	11,827	87,772	46,256	1.90
2020	83,362	15,199	98,561	49,214	2.00

SOURCES: EMFAC 2011(2012).

Emissions

The forecasts for CO_2 emissions are summarized in Table 9. CO_2 emissions are projected to decrease from 820 to 732 tons per day from 2010 through 2020. This represents an approximately 11 percent decrease in CO_2 emissions through the AB32 attainment year. As previously discussed, CO_2 emission rates are not significantly affected by emissions control technologies like other greenhouse gases so it is increasingly difficult to cause significant reductions in CO_2 emissions within the transportation sector. The 11 percent reduction that is estimated to occur from 2010 through 2020 is a reflection of the benefits of Pavley and Low Carbon Fuel Standard regulations.

Table 9: GHG Emission Estimates (Tons per Day)

ANALYSIS YEAR	CO_2
1990	518.61
2010	820.14
2020	732.91

SOURCES: EMFAC 2011(2012).

As described previously, CCOG does not have land use authority within the County or the incorporated cities; therefore, CCOG's ability to control CO_2 emissions and mitigate for climate change impacts is largely limited to transportation funding decisions that may result in decreases in VMT throughout the County.

Implementation of the mitigation measures described below will assist in the reduction of per capita VMT levels throughout Calaveras County, which will assist in meeting the stated goals of AB 32. CCOG has included numerous projects and programs to promote the use and improvement of alternative transportation systems throughout the County and they continue to coordinate with local land use agencies to assist in the development of plans and policies aimed at reducing VMT. With implementation of all of the policies, action plans, and mitigation measures included in the RTP and this study, the proposed project will have a ***less than significant*** impact.

Mitigation Measure 17: *The CCOG should consider incorporating a complete streets policy with a strong focus on identifying opportunities to create more active transportation within the region (i.e. bike and pedestrian facilities).*

Mitigation Measure 18: *Consistent with Appendix F of the CEQA Guidelines, the implementing agencies should take steps to identify and reduce energy consumption: Potential steps could include, but shall not be limited to, the following:*

- *Promote measures to reduce wasteful, inefficient and unnecessary consumption of energy during construction, operation, maintenance and/or removal. As the individual RTP projects are designed there should be an explanation as to why certain measures were incorporated in the RTP project and why other measures were dismissed.*
- *Site, orient, and design projects to minimize energy consumption, increase water conservation and reduce solid-waste.*
- *Promote efforts to reduce peak energy demand in the design and operation of RTP projects.*
- *Promote the use of alternate fuels (particularly renewable ones) or energy systems for RTP projects.*
- *Promote efforts to recycle materials used in the construction (including demolition phase) of RTP projects.*

Mitigation Measure 19: *The CCOG should coordinate with local and regional agencies to assist in efforts to develop local and regional CAPs (Climate Action Plans) that address climate change and greenhouse gas emissions if required. If developed, local and regional CAPs should include the following components:*

- *Baseline inventory of GHG emissions from community and municipal sources.*
- *A target reduction goal consistent with AB 32.*
- *Policies and measures to reduce GHG emissions.*
- *Quantification of the effectiveness of the proposed policies and measures.*
- *A monitoring program to track the effectiveness and implementation of the CAP(s).*

CCOG's role in the development of local and regional CAPs could include:

- *Assistance in seeking and securing funding for the development of local and regional CAPs.*
- *Collaboration with local and regional agencies throughout their respective planning processes.*

Mitigation Measure 20: *If required, CCOG should assist local agencies with the development of an Alternative Fuel Vehicle and Infrastructure Policy. The policy should include provisions that address best*

practices, and standards related to saving energy and reducing GHG emissions through AFV use, including:

- *A procurement policy for using AFV by franchisees of these cities, such as trash haulers, green waste haulers, street sweepers, and curbside recyclable haulers. Such AFVs should have GHG emissions at least 10 percent lower than comparable gasoline- or diesel- powered vehicles.*
- *A fleet purchase policy to increase the number of AFVs (i.e., vehicles not powered strictly by gasoline or diesel fuel) for municipally owned fleets.*

Mitigation Measure 21: *Prior to construction, the implementing agency shall take steps to identify and protect sites from hazardous materials. Potential steps could include, but shall not be limited to, the following measures:*

- *Implement site-specific analysis for hazardous materials, remediation, and clean-up.*
- *Implementing agencies shall investigate potential for projects to be located at or near areas that are reasonably expected to contain hazardous materials, DTSC sites, areas containing ADL or naturally occurring asbestos, or at any structure that may contain asbestos.*
- *An assessment of historical use of the area and soil sampling as necessary. If a project site is found to be contaminated, clean up measures in accordance with the appropriate regulatory agency procedures will be implemented.*
- *Employ appropriate remediation measures to ensure worker safety during construction.*
- *All measures will be submitted to the DTSC for review and approval prior to project construction.*

As discussed above, implementation of the RTP will not conflict with AB 32 or SB 375. There are no other plans, policies or regulations adopted for the purpose of reducing the emissions of greenhouse gases in Calaveras County. Therefore, this is impact is considered ***less than significant***.

VIII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X		
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		X		
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			X	
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?			X	
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		X		
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			X	

BACKGROUND DISCUSSION

Hazardous Materials

A "hazardous material" is a substance or combination of substances that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may pose a potential hazard to human health or the environment when handled improperly.

Hazardous Sites

The Department of Toxic Substances Control maintains a list of all Cleanup Sites and Hazardous Waste Facilities, including the status, within the Enirostor database. The database includes the following: Federal Superfund Sites (NPL), State Response Sites, Voluntary Cleanup Sites, School

Cleanup Sites, Corrective Action Sites, Tiered Permit Sites, Evaluation / Investigation Sites, Permitted - Operating, Post-Closure Permitted, and Historical Non-Operating.

As of May 21, 2012, there were 22 locations in the County that were registered with the Department of Toxic Substances Control. Of these sites, only one is listed as Active. All other sites have been referred to other agencies, de-listed, or determined that no action is required, or that an evaluation is needed. Table 10 lists all sites listed in the Envirostor database in Calaveras County.

Table 10 – DTSC Envirostor Database

SITE/FACILITY NAME	SITE TYPE	STATUS	ADDRESS	CITY
AL-CHEM, INC.	Evaluation	Refer: Other Agency	SR 26 and 12	San Andreas
ALONSO'S AUTO DISMANTLERS	Historical	Refer: Other Agency	SR 26 and 12	San Andreas
ANGELS AUTO BODY	Historical	Refer: Other Agency	Dogtown Rd.	Altaville
ANGELS CAMP TOWNE CENTER SITE	Voluntary Cleanup	Active – Land Use Restr.	260 South Main St.	Angles Camp
AVERY MIDDLE SCHOOL EXPANSION	School Investigation	No Action Required	4595 Moran Rd.	Avery
B & B AUTO WRECKERS	Historical	Refer: Other Agency	2258 Evans Rd.	Burson
BLACKSTONE MINE	Historical	Refer: RWQCB	One mile from paved end of Spink Rd.	West Point
BLAZING STAR MINE	Evaluation	Refer: RWQCB	Bald Mountain Rd.	West Point
CARSON HILL GOLD MINING CORPORATION	Evaluation	Refer: RWQCB	4795 SR 49	Angles Camp
COPPER COVE MIDDLE SCHOOL	School Cleanup	Inactive - Needs Evaluation	Copper Cove / Black Creek Dr.	Copperopolis
COPPER COVE VILLAGE SUBDIVISION	State Response	* De-listed	Quail HIll Rd.	Copperopolis
COPPEROPOLIS HIGH SCHOOL	School Cleanup	Inactive - Needs Evaluation	Little John Rd.	Copperopolis
COPPEROPOLIS MINES	Evaluation	Inactive - Needs Evaluation	Copper Creek Drainage from North Copperopolis to Blacks Creek	Copperopolis
DEXTER ROGERS CONSTRUCTION	Historical	Refer: Other Agency	Harte Viction	Valley Springs
GENSTAR CEMENT COMPANY	Historical	No Action Required	2965 Pool Station RD.	San Andreas
MARK TWAIN ST. JOSEPH'S HOSPITAL	Calmortgage	No Action Required	768 Mountain Ranch Rd.	San Andreas
MOORE CREEK MINING COMPANY	Historical	Refer: RWQCB	1/2 mile upstream of the Mokelumne River	West Point
MOUNTAIN OAKS CHARTER SCHOOL AND CALAVERAS RIVER ACADEMY	School Cleanup	Certified / Operation and Maintenance	1250 Pool Station Rd.	San Andreas
PENN MINE	Evaluation	Refer: RWQCB	Needs to be determined	Valley Springs
RED HILL SANITARY LANDFILL	Evaluation	Refer: RWQCB	Southwest of Vallecito	Vallecito
SNIDER FOREST PRODUCTS	Evaluation	Refer: RWQCB	West SR 12	Wallace
SURVIVAL TRG AX SITE NE 1	Military Evaluation	Inactive - Needs Evaluation		Hogan Lake, Valley Springs

SOURCE: DEPARTMENT OF TOXIC SUBSTANCES CONTROL 2012

The State Water Resources Control Board (SWRCB) maintains a list of a variety of sites, including the status, within the Geotracker database. The database includes the following: Leaking Underground Storage Tank (LUST) Cleanup Sites, Other Water Board Cleanup Sites, Land Disposal Sites, Land Disposal Sites, WDR Sites

As of May 21, 2012, there were 37 locations in the County with an open status with the SWRCB. Of these sites, 19 are LUST Cleanup sites, five are program cleanup sites, and 13 are land disposal sites. Table 11 lists all sites listed in the Geotracker database in Calaveras County.

Table 11 – SWRCB Geotracker

SITE / FACILITY NAME	SITE TYPE	STATUS	ADDRESS	CITY
ALTAVILLE FOREST FIRE STATION	LUST Cleanup	Open - Verification Monitoring	125 Main St.	Altaville
ALTAVILLE MAINTENANCE STN	LUST Cleanup	Open - Remediation	154 Monte Verde Rd.	Altaville
BECK PROPERTY	LUST Cleanup	Open - Verification Monitoring	4549 SR 4	Avery
BUSI CHEVRON	LUST Cleanup	Open - Verification Monitoring	8 California St. E.	Valley Springs
C & L CYCLE	LUST Cleanup	Open - Site Assessment	238 St. Charles St.	San Andreas
COPPER SALOON	LUST Cleanup	Open - Remediation	86 & 102 Main St.	Copperopolis
COPPER SALOON / COPPER HOTEL	LUST Cleanup	Open - Verification Monitoring	86 & 102 Main St.	Copperopolis
FOREST MEADOWS GOLF COURSE	LUST Cleanup	Open - Site Assessment	1042 Forest Meadows Dr.	Murphys
GAS MART	LUST Cleanup	Open - Verification Monitoring	141 West Charles St.	San Andreas
GLENCO STORE/ONE STOP STATION	LUST Cleanup	Open - Remediation	15138 SR 26	Glencoe
HERB'S CORNER/CENTURY 21	LUST Cleanup	Open - Verification Monitoring	6 California St. (aka: 87 SR 12)	Valley Springs
RON'S SIERRA SUPER STOP/EXXON	LUST Cleanup	Open - Remediation	103 SR 12	Valley Springs
SIERRA ENERGY	LUST Cleanup	Open - Site Assessment	716 Poole Station Rd.	San Andreas
SIERRA TRADING POST #8	LUST Cleanup	Open - Site Assessment	8026 SR 49	Mokelumne Hill
STAR GAS	LUST Cleanup	Open - Verification Monitoring	22645 SR 26	West Point
TOM'S SIERRA BULK PLANT # 42	LUST Cleanup	Open - Assessment and Interim Remedial Action	746 Pool Station Rd.	San Andreas
TOM'S SIERRA TIRE #72	LUST Cleanup	Open - Site Assessment	716 Pool Station Rd.	San Andreas
TOWER MART #864	LUST Cleanup	Open - Assessment and Interim Remedial Action	1049 South Main St.	Angles Camp
WEST POINT EXXON	LUST Cleanup	Open - Verification Monitoring	347 Main St.	West Point
ANGELS CAMP GUN CLUB	Cleanup Program	Open - Inactive	2403 Gun Club Rd.	Angles Camp
CALAVERAS TOOL RENTAL (FORMER)	Cleanup Program	Open - Inactive	632 West St. Charles St.	San Andreas
PESTICIDE DUMP SITE	Cleanup Program	Open - Inactive	Gregory Rd.	Valley Springs
SAVE MART NO. 46	Cleanup Program	Open - Inactive	260 South Main St.	Angles Camp
WELLS FARGO BANK SAN ANDREAS	Cleanup Program	Open - Assessment and Interim Remedial Action	169 St. Charles Street E	San Andreas
BLAZING STAR MILL/MINE	Land Disposal	Open	Jurs Rd.	West Point
CALAVERAS CEMENT COMPANY	Land Disposal	Open	2965 Pool Station Rd.	San Andreas
CALAVERAS CEMENT COMPANY	Land Disposal	Open	Poole Stat. Rd., Kentucky House	San Andreas
CALIF ASBESTOS MONOFIL	Land Disposal	Open	O'Bynes Ferry	Copperopolis
CARSON HILL ROCK PRODUCTS	Land Disposal	Open	4795 SR 49	Angles Camp
CARSON HILL ROCK PRODUCTS	Land Disposal	Open	4795 South SR49	Angles Camp
MINE RUN DAM	Land Disposal	Open	Penn Mine Rd.	Campo Seco
PENN MINE	Land Disposal	Open	Penn Mine	Campo Seco
RED HILL MINE	Land Disposal	Open	Red Hill	Angles Camp
RED HILL SWDS	Land Disposal	Open	Red Hill Access	Vallecito
ROCK CREEK LANDFILL	Land Disposal	Open	12021 Hunt	Milton
ROYAL MT KING MINE -MINE WASTE	Land Disposal	Open	4461 Rock Creek	Copperopolis
ALTO GOLD MINE	Land Disposal	Open		Copperopolis

SOURCE: STATE WATER RESOURCES CONTROL BOARD 2012

Hazardous Minerals

Asbestos is a term applied to several types of naturally occurring fibrous materials found in rock formations throughout California. Asbestos is commonly found in ultramafic rock,

including serpentine, which is abundant in the foothills of the Sierra Nevada. Asbestos has been mined in several localities throughout the Sierra Nevada.

Serpentine rock, which often contains asbestos, has also been used extensively as base material in the construction of new roads. Exposure and disturbance of rock and soil that contains asbestos can result in the release of fibers to the air and consequent exposure to the public. All types of asbestos are now considered hazardous and pose public health risks. The use of asbestos-containing materials is regulated by the California Air Resources Board (CARB).

Ultramafic rock occurs within the western portion of the County and generally extends north to southwest following the Bear Mountain and Melones Fault Zones. Specifically, areas identified as potentially containing naturally occurring asbestos include the following:

- From Pardee Reservoir extending southwest through the Valley Springs area to just southeast of New Hogan Reservoir;
- In the area north of Copperopolis extending southeast through New Melones Reservoir;
- In the Mountain Ranch area.

Wildland Fire Hazards

Wildland fires are a major hazard in the State of California. Wildland fires burn natural vegetation on developed and undeveloped lands and include timber, brush, woodland, and grass fires. While low intensity wildland fires have a role in the County's ecosystem, wildland fires put human health and safety, structures (e.g., homes, schools, businesses, etc.), air quality, recreation areas, water quality, wildlife habitat and ecosystem health, and forest resources at risk.

Wildland fire hazards exist in varying degrees over the majority of the County. The highest wild fire risk to human health and safety occurs in the communities where people reside and work, which is referred to as the urban-wildland interface. Fires that occur within the urban-wildland interface areas affect natural resources as well as life and property. Historically, Calaveras County has experienced several large and damaging wildfires in and around the wildland urban interface areas. All of the County is designated with a High Fire Hazard Rating.

RESPONSES TO CHECKLIST QUESTIONS

Responses a), d): The RTP provides for improvements to transportation systems that may be used to transport hazardous materials. All transportation of hazardous materials is regulated by federal and state laws and local ordinances. None of the components of the proposed project would cause or require routine transport, use, or disposal of hazardous materials. Each individual project would be required to have a Phase I Environmental Site Assessment (ESA) prepared to determine whether it has hazardous materials on the site. The Phase I ESA would identify the specific conditions and based on specific findings at each locality, provide recommendations that are necessary to reduce the risks associated with hazardous materials. Implementation of the following measure will ensure that the proposed project will have a ***less than significant impact*** relative to this issue.

> ***Mitigation Measure 22:*** *If a project will result in road closures, traffic detours, or congestion on main thoroughfares or roads that provide primary access to populated areas, the implementing agencies shall assess the need for a Transportation Management Plan (TMP).*

If a TMP is completed, it will be provided to all emergency service providers in the construction area and will notify them of anticipated dates and hours of construction, as well as any anticipated limits on access. Notice will be provided at least 5 days before construction begins.

Response b), c): There are numerous schools throughout Calaveras County. It is possible that one, or more, of the individual improvements is located within ¼ mile of a school. Hazardous materials used in construction of a project in the vicinity of a school could be accidentally released. In the event of a hazardous materials spill or release, notification and cleanup operations would be performed in compliance with federal and state regulations to mitigate hazards to people and the environment.

Implementation of individual improvements would require construction activities, including grading, which has the potential to release naturally occurring asbestos into the air. This is a potentially significant impact to construction workers and citizens in the region. However, each improvement project will require a geotechnical study to be performed. The study will identify the soil types and the presence of soils and rock types, including those that could contain naturally occurring asbestos. If asbestos is deemed present, the proposed project would be required to comply with the AQMD's "Fugitive Dust Prevention and Control and Asbestos Hazard Dust Mitigation Plan" during project construction. Implementation of the proposed project would result in a ***less-than-significant*** impact.

Response e), f): The proposed project includes proposed improvements to aviation facilities. This includes improvements to taxi-ways, aprons, and aviation structures. Though these improvements will all take place within an Airport Land Use Plan area, they will comply with the guidelines provided in the plan. Therefore, neither improvements to adjacent roads nor improvements to the airports themselves will result in hazardous conditions for people residing or working in the area. Implementation of the proposed project would result in a ***less-than-significant*** impact.

Response g): Construction of individual projects may result in temporary road closures, traffic detours, or congestion, which may hinder the emergency vehicle access or evacuation in the event of an emergency. The following measure requires projects to prepare a Transportation Management Plan (TMP) if such a plan is deemed necessary by the implementing agency. Implementation of the following measure would ensure the proposed project would result in a ***less-than-significant*** impact.

Mitigation Measure 23: *Project design should incorporate measures to address hazardous conditions on the project site. Project measures could include, but shall not be limited to, the following:*

- *Design new bridges or bridge replacement with adequate clearance, proper design, and debris walls, where needed, to reduce damage caused by tree logs and excessive debris accumulation.*
- *Develop and implement a spill prevention and control program to minimize the potential for, and effects from, spills of hazardous, toxic, or petroleum substances during all construction activities.*
- *Comply with NPDES and Waste Discharge Requirements when dewatering is required.*

Response h): The transportation improvements identified in the RTP would not result in the construction of structures that would be occupied by humans; therefore, it would not expose people or structures to a significant risk involving wild fires. The RTP provides for improvements to transportation systems throughout the County, which is expected to improve the ability for fire protection services to access areas that have a Very High hazard rating. Implementation of the proposed project would result in a ***less-than-significant*** impact.

IX. HYDROLOGY AND WATER QUALITY

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Violate any water quality standards or waste discharge requirements?		X		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?		X		
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?		X		
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?		X		
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?		X		
f) Otherwise substantially degrade water quality?		X		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			X	
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?			X	
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X	
j) Inundation by seiche, tsunami, or mudflow?			X	

BACKGROUND DISCUSSION

Calaveras County encompasses approximately 657,920 acres in central California along the western slope of the Sierra Nevada Mountain Range. The County is approximately 53 miles long from west to east and 20 miles wide from north to south. Elevations range from 300 feet above

sea level in the rolling foothills of the western portion of the county, to 8,170 feet above sea level near the county's northeastern border. Deep ravines and steep ridges are found between the foothills and the higher mountains.

Calaveras County's climate lies in a transitional zone between the Sierra Nevada and the San Joaquin Valley. Climate varies significantly due to great differences in elevation. Temperatures in the higher country range from the low 20's to the middle 80's. The lower foothills range in temperature from the low 30's to the high 90's, exceeding 100 degrees at times during the summer months. Rainfall generally increases with altitude, and snow accounts for much of the precipitation in elevations above 3000 feet.

Waterways/Watersheds

The Mokelumne River, Calaveras River, and Stanislaus River are the major waterways in the County. These three waterways receive the majority of stormwater runoff from within the County

There are six major watersheds within the County. These include portions of the Upper and Lower Mokelumne River Watersheds (USGS Cataloguing Units 18040012 and 18040005), the Upper and Lower Calaveras River Watersheds (Units 18040011 and 18040004), and portions of the Upper and Lower Stanislaus Watersheds (Units 18040010 and 1804002).

Surface Water Impoundments

There are no naturally-occurring lakes of significant size within the County, although some smaller mountain lakes and ponds are located in the upper elevations of the Sierra Nevada Mountain Range. All significant surface water storage within Calaveras County is provided by several large-scale manmade reservoirs have been constructed along each of the County's three major rivers. These reservoirs provide storage capacity for flood control, water supply, and hydropower generation

Flooding

Four types of flood events can occur in Calaveras County: dam failure inundation, flash flood, riverine flooding, and urban flooding. Each are discussed below.

A dam failure inundation occurs as a result of structural dam failure that results in a large release of water from a reservoir that flows downstream and overtops the banks of rivers and/or creeks. The County's larger dams and reservoirs are located in the western portion of the county. Several smaller dams are found throughout the county; however, the dam inundation threats for these dams are less the larger dams in the western portion of the county. The areas with the greatest dam inundation threat are found downstream of the larger reservoirs in the county: Pardee, Camanche, New Hogan, New Melones, and Tulloch.

A flash flood is when a waterway rises very quickly, occurring suddenly, within a short time (from minutes to less than six hours), and usually is characterized by high flow velocities. Flash floods often result from intense rainfall over a small area, usually in areas of steep terrain.

Riverine flooding occurs when a river or stream flows over its banks and causes considerable inundation of nearby land and roads. Riverine flooding is a longer-term event that may last a week or more. Overbank flows along the Mokelumne and Stanislaus Rivers and portions of the Calaveras River system usually result from heavy snow melt combined with heavy rainfall.

Urban flooding occurs as land is converted from fields or woodlands to roads and parking lots and loses its ability to absorb rainfall.

Other types of floods include general rain floods, thunderstorm floods, snowmelt and rain on snow floods, and local drainage floods.

Based on flood risk evaluations prepared by FEMA, county flood hazards are a constraint to development in the areas immediately adjacent to Camanche Reservoir, New Hogan Lake, New Melones Reservoir, and the creeks and rivers found throughout the county. The remainder of the County has been determined to be located outside of the 500-year flood zone.

The Calaveras County Emergency Operations Plan identifies controlled releases from Spicer and Hunter Reservoirs, McKay's Dam, Hogan, Melones, and Tulloch Lakes, and rising water in the Mokelumne and Stanislaus Rivers, smaller year-round flowing creeks including the Angels, Murphys, Moran, and Cosgrove Creeks, and flash flood water from numerous seasonal creek beds are the county's primary flood control concerns.

Stormwater Runoff

Human activities have an effect on water quality when chemicals, salting of roads (to melt snow) heavy metals, hydrocarbons (auto emissions and car crank case oil), and other materials are transported with stormwater into drainage systems. Construction activities can increase sediment runoff, including concrete waste and other pollutants.

Calaveras County has developed a comprehensive program that includes "best management practices (BMPs)" designed to protect water quality and reduce the discharge of pollutants into the county's storm drain systems to the "maximum extent practicable." Top priority has been given to the implementation of measures necessary to control soil erosion and sediment discharges from construction sites in high-growth areas of the county. High priority has also been given to the implementation of requisite land use guidelines and design standards for new developments and redevelopment projects.

303(D)-Listed Impaired Water Bodies

Section 303(d) of the Federal Clean Water Act (CWA) requires the State Water Board to identify surface water bodies within California that do not meet established water quality standards. Once identified, the affected water body is included on the State Water Board's "303(d) Listing of Impaired Water Bodies" and a comprehensive program must then be developed to limit the amount of pollutant discharges into that water body. This program includes the establishment of "total maximum daily loads (or TMDLs)" for pollutant discharges into the designated water body. The 303(d) list approved by the US EPA identifies the Lower Stanislaus River as being impaired by Diazinon, Group A pesticides, and mercury. Group A pesticides include chlordane, toxaphene, heptachlor, endosulfan, and several other pesticides.

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Implementation of individual improvements identified in the RTP would not violate any waste discharge requirements, substantially deplete groundwater supplies, or interfere with groundwater recharge such that there would be a net deficit in an aquifer volume. The construction phase of the projects could cause storm water runoff that could carry topsoil into downstream waterways and ultimately waters of the U.S.

As required by the Clean Water Act, each specific improvement project will require an approved Storm Water Pollution Prevention Plan (SWPPP) that includes best management practices for

grading, and preservation of topsoil. A SWPPP is not required if the project will disturb less than one acre. SWPPPs are designed to control storm water quality degradation to the extent practicable using best management practices during and after construction.

The lead agency that approves and implements a specific project will submit the SWPPP with a Notice of Intent to the Regional Water Quality Control Board (RWQCB) to obtain a General Permit. The lead agency for individual projects is not yet known, as funding, designs, and approvals have not been made. The lead agencies could include state or local agencies.

The RWQCB is an agency responsible for reviewing the SWPPP with the Notice of Intent, prior to issuance of a General Permit for the discharge of storm water during construction activities. The RWQCB accepts General Permit applications (with the SWPPP and Notice of Intent) after specific projects have been approved by the lead agency. The lead agency for each specific project that is larger than one acre is required to obtain a General Permit for discharge of storm water during construction activities prior to commencing construction (per the Clean Water Act). As presented in a previous mitigation measure, the proposed project would be required to comply with NPDES General Construction Permit requirements to reduce or eliminate construction-related water quality effects. This measure requires the preparation, implementation, and maintenance of a SWPPP during construction. With NPDES compliance, and implementation of the following measures, the proposed project would have a ***less-than-significant*** impact.

Mitigation Measure 24: *Project design should incorporate measures to protect the integrity of the project site from storm water runoff and reduce impacts due to changes in the quality of storm water runoff. Potential measures could include, but shall not be limited to, the following:*

- *Implement source and treatment control measures that minimize the volume and rate of storm water runoff discharge from the project site. General site design control measures incorporated into the project design can include:*
    - *Conserving natural areas;*
    - *Protecting slopes and channels;*
    - *Minimizing impervious areas;*
    - *Storm drain identification, and appropriate messaging and signing; and*
    - *Minimizing effective imperviousness through the use of turf buffers and/or grass-lined channels, if feasible.*
- *Implement treatment control measures, if possible and when feasible, to remove pollutants from storm water runoff prior to discharge to the storm drain system or receiving water. Treatment control measures may include, but not be limited to, the following:*
    - *Vegetated buffer strip*
    - *Vegetated swale*
    - *Extended detention basin*
    - *Wet pond*
    - *Constructed wetland*
    - *Detention basin/sand filter*
    - *Porous pavement detention*
    - *Porous landscape detention*
    - *Infiltration basin*
    - *Infiltration trench*
    - *Media filter*
    - *Retention/irrigation*

- *Proprietary control device*

Selection and implementation of these measures would be based on a project-by-project basis depending on project size, and storm water treatment needs.

Mitigation Measure 25: *During project development, implementing agencies shall take steps to identify and reduce potential impacts due to changes in the quantity of storm water runoff due to project construction and use. Potential actions could include, but shall not be limited to, project-level drainage studies. If conducted, the study should address the following:*

- *A calculation of pre-development runoff conditions and post-development runoff scenarios using appropriate engineering methods. This analysis will evaluate potential changes to runoff through specific design criteria, and account for increased surface runoff.*
- *An assessment of existing drainage facilities within the project area, and an inventory of necessary upgrades, replacements, redesigns, and/or rehabilitation, including the sizing of on-site storm water detention features and pump stations.*
- *A description of the proposed maintenance program for the onsite drainage system.*
- *Standards for drainage systems to be installed on a project/parcel-specific basis.*
- *Proposed design measures to ensure structures are not located within 100-year floodplain areas.*

Selection and implementation of these measures would be based on a project-by-project basis depending on project size and stormwater treatment needs.

Responses c), d), e), f): Implementation of individual RTP improvements may alter the existing drainage pattern in specific areas, including the alteration of a course of a stream or river, which could result in erosion, siltation, or flooding on- or off-site. The improvement projects are not funded or approved at this point and no project specific plans are available. Each improvement project would require a specific level of design review to ensure that the engineering does not result in substantial alterations in the natural drainage systems.

The U.S. Army Corps of Engineers (USACE) is responsible for issuing permits for the placement of fill, or discharge of material into, waters of the United States. These permits are required under Sections 401 and 404 of the Clean Water Act. Individual projects that involve instream construction, such as bridges, trigger the need for these permits and related environmental reviews by USACE. Subsequent environmental review, design review, and the Clean Water Act permitting requirements would ensure that the impacts are reduced to a reasonable level. Implementation of the following measure would ensure that the proposed project would have a ***less-than-significant*** impact.

Mitigation Measure 26: *During project development, implementing agencies shall take steps to identify and avoid restriction of flood flows. Any proposed projects requiring federal approval or funding must comply with Executive Order 11988 for floodplain management. Potential steps could include, but shall not be limited to, the following:*

- *Project designs should avoid incompatible floodplain development designs.*
- *Project designs should restore and preserve the natural and beneficial floodplain values.*
- *Project designs should maintain consistency with the standards and criteria of the National Flood Insurance Program.*

In addition, a Letter of Map Revision (LOMR) will be prepared and submitted to FEMA where unavoidable construction would occur within 100-year floodplains. The LOMR will include revised local base flood elevations for projects constructed within flood prone areas.

Potential impacts due to flooding as a result of RTP projects are assumed to be alleviated through the FEMA LOMR approval process.

Mitigation Measure 27: *During project development, the implementing agency shall take steps to identify and protect against project dewatering. Project designs that require continual de-watering activities for the life of the projects will be avoided if possible. Project alternatives may include construction of overpasses, as opposed to below-grade underpasses, which would avoid interception with groundwater.*

Mitigation Measure 28: *During project development, the implementing agency shall take steps to ensure consistency with approved general plan policies and zoning requirements. Potential actions could include, but shall not be limited to, the following:*

- *The implementing agency should consult with the appropriate local land use planning staff to identify potential inconsistencies of the project with the local General Plan and zoning ordinance.*
- *The inquiry should consider new road widths and specific project locations in relation to the requirements in the appropriate General Plan and/or zoning code. If it is determined that a project could physically divide a community, or conflict with zoning or General Plan policies, the implementing agency shall redesign the project to the extent feasible given funding availability and time constraints*

If it is determined that a project could physically divide a community, or conflict with zoning or General Plan policies, the implementing agency should consider alternatives and/or incorporate measures to avoid, minimize, or mitigate community impacts.

Responses g), h), i), j): Implementation of individual improvements would not place housing within a 100-year flood hazard area, place structures which would impede or redirect flood flows within a 100-year flood hazard area, nor would it expose people or structures to a significant risk of loss, injury or death involving flooding (including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow). Therefore, implementation of the proposed project would have a **less-than-significant** impact on these environmental issues.

X. LAND USE AND PLANNING

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Physically divide an established community?		X		
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

BACKGROUND

Transportation and Land Use

The topography of the county varies with elevations ranging from approximately 300 feet above mean sea level in the western portion of the County to approximately 8,000 feet above mean sea level in the eastern portion of the County. The total area of Calaveras County is 1,036 square miles, of which 1,020 square miles are land (98 percent) and 16.8 square miles are water (2 percent). The only incorporated city in the County is the City of Angels Camp. Unincorporated communities include: Arnold, Avery, Copperopolis, Dorrington, Mokelumne Hill, Murphys, Rancho Calaveras, San Andreas, Vallecito, Valley Springs, and West Point. Table 12 provides 2000 and 2010 Census population numbers for these communities.

Table 12: Community Populations

COMMUNITY	2010 POPULATION	2000 POPULATION	LAND AREA (SQUARE MILES)
Arnold	3,843	4,218	14.8
Avery	646	672	4.5
Copperopolis	3.671	2,363	21.5
Dorrington	609	727	3.7
Mokelumne Hill	646	1,197	3.1
Mountain Ranch	1,628	1,557	41.2
Murphy's	2,213	2,061	10.3
Rancho Calaveras	5.325	4,182	8.5
San Andreas	2,783	2,615	8.7
Vallecito	442	427	8.6
Valley Springs	3,553	2,560	9.8
West Point	674	746	3.7

SOURCE: US CENSUS 2000 AND 2010.

The guiding principle in preparing the Land Use and Circulation Elements of the Calaveras County General Plan is to use the physical environment – including the transportation network – to guide future land use patterns that will develop as growth occurs. This principle is reinforced in the RTP and the General Plan which recognizes that future development should occur in areas that will be easiest to develop, provide cost effective access to existing and planned infrastructure, and is consistent with stated goals and objectives of the CCOG, County and City of Angels Camp. This type of development pattern typically has lower public service

costs, the least negative environmental effect, and will not displace or endanger the County's critical natural resources. The intended outcome of integrating transportation and land use is lower improvement costs and increased operational efficiency of the transportation system. This pattern, as discussed before, also aids in the reduction of VMT which has a direct effect on air quality and greenhouse gas (GHG) emissions.

Planned Development

The following development projects represent the types of residential and/or commercial development being considered throughout Calaveras County. Given the current economic conditions, some delay or actual cancellation has occurred. The development that has been approved does not affect the baseline land use assumptions used in the TDM. Future forecasts will consider the proposed changes in land use as part of the General Plan development and approval process.

The following information shows the status of planned development by District and transportation facility:

District 1 / District 5 (SR 12)

Development	Units	Status Code*
Charboneau Estates (Valley Springs)	64 lots	(1)
Crestview Estates (near Wallace)	37 lots	(1) (6)
EP & G Properties (Spring Valley Estates (1)	35 lots	(1) (6)
Las Tres Marias (near Wallace)	15 lots	(3)
Meadow View Estates (Widhalm)	11 lots	(1) (6)
Mendonca (near Wallace)	6 lots	(1)
Mission Ranch (Valley Springs)	219 lots; 2 commercial parcels	(2)
Stamper Ranch	21 lots	(3) (6)
Ventana	50 lots	(1)

*(1) In approval process – application incomplete or missing baseline studies for CEQA review
(2) In approval process – review is ongoing
(3) Tentative Map approved.
(4) Final Map approved
(5) Map is expired
(6) Land ownership has changed or Application has changed hands. Status is undertain
(7) Under Construction

District 1 / District 5 (SR 26)

Development	Units	Status Code*
Calaveras River Estates	5 lots	(3)
Calaveras River Heights	25 lots	(1) On hold
Courtyard at La Contenta	Shopping Center	(2)
Del Verde Subdivision	91 lots	(1) (6)
Gold Creek Estates	385 lots	(4) (7) in phases
Hogan Oaks 1 and Hogan Oaks 2	122 lots	(1)
New Hogan lake Estates (Platner)	83 lots	(3) (4) in phases
North Vista Plaza	156 lots	(4) (7)
Old Golden Oaks	96 lots	(1)
Olive Orchard Estates	50 lots	(4) (7)
George Rose	6 lots	(3)
Vista Plaza II	38 lots	(3) (4) in phases

Vosti Properties	24 lots	(3) extension of time approved
Bolin Property	18 lots	(1)
Briski Property	25 lots	(1)
Schroven Property	20 lots	(1)
Zinfandel Estates (Robinson)	4 lots	(1)

*(1) In approval process – application incomplete or missing baseline studies for CEQA review
(2) In approval process – review is ongoing
(3) Tentative Map approved.
(4) Final Map approved
(5) Map is expired
(6) Land ownership has changed or Application has changed hands. Status is undertain
(7) Under Construction

District 3 (City of Angels/Murphys/Arnold SR 49 and SR 4)

Development	Units	Status Code*
Forest Meadows (various applications)	220	(1) (2)
Murphys Rocky Hill (in Murphys)	43	(2)
Mitchell Ranches (in Vallecito)	113	(2)
Coyote Creek (near Douglas Flat)	104	(1)
Sutton Enterprises on SR 49 at Melones)	14	(1)
(Deaver Projects on SR 49 at Melones):		
Nielsen	5	(2)
Rasmussen	5	(2)
Wilson	4	(2)
Field	4	(2)
Novogradac (Camp Connell area)	15	(2)
Khosla (Sheep ranch Road)	44	(1)

*(1) In approval process – application incomplete or missing baseline studies for CEQA review
(2) In approval process – review is ongoing
(3) Tentative Map approved.
(4) Final Map approved
(5) Map is expired
(6) Land ownership has changed or Application has changed hands. Status is undertain
(7) Under Construction

District 4 (Copperopolis SR 4)

Development	Units	Status Code*
Copper Town Square	39 to 69 units and commercial space	(4) in phases
Copper Town Square Condos	May be included in total above	
Sawmill Lake	800 units and Village	(2)
Vineyard Estates	18 lots	(2)
Saddle Creek	1,650 lots	(3) (4) phases
Oak Canyon	2,275 lots, 400 permanent units, 800 transient	(3) (6)
Tuscany Hills	300 lots	(3) (6)
Copper Valley Ranch	2,400 lots	(1) (2)

*(1) In approval process – application incomplete or missing baseline studies for CEQA review
(2) In approval process – review is ongoing
(3) Tentative Map approved.
(4) Final Map approved
(5) Map is expired

(6) Land ownership has changed or Application has changed hands. Status is undertain
(7) Under Construction

RESPONSES TO CHECKLIST QUESTIONS

Response a): The majority of RTP projects would involve transportation system improvements to existing facilities, which would mostly occur within or in close proximity to existing rights-of-way. Some RTP projects will involve new facilities that will occur within or adjacent to existing communities. In many cases, improvements to facilities will occur where communities are already physically divided by existing facilities, including highways, roadways, and intersections. The RTP is intended to improve inter- and intra-regional connectivity and new or improved land use linkages. However, specific projects have the potential to divide existing contiguous land uses. Because these potential improvement projects could occur within the developed areas, communities could be affected.

Because the proposed project is a planning document and thus, no physical changes will occur to the environment, adoption of the proposed project would not directly impact the environment. It is assumed that RTP projects that affect roads and interchanges present the greatest potential for impacts regarding the division of an established community. The following mitigation measure would ensure that all RTP projects are designed to maintain the cohesiveness of the existing communities to the greatest extent feasible. Where full design mitigation is not feasible, measures would be incorporated into the design to minimize the impacts associated with project implementation. Adherence to the requirements of this mitigation measure would reduce this impact to a ***less than significant*** level.

> ***Mitigation Measures 29:*** *Prior to approval of RTP projects, the implementing agency shall take steps to identify and protect noise-sensitive receptors from traffic noise. Some classes of projects may require a project-level noise evaluation. For projects with potentially significant impacts to noise-sensitive receptors, implementing agencies should consider the following measures:*
>
> - *Construct vegetative earth berms with mature trees and landscaping to attenuate roadway noise on adjacent residences or other sensitive use, and /or sound walls or other similar sound-attenuating buffers, as appropriate.*
> - *Properly zone, buffer, and restrict future development to ensure that it is compatible with transportation facilities.*
> - *Design projects to maximize the distance between noise-sensitive land uses and new roadway lanes, roadways, rail lines, transit centers, park-and-ride lots, and other new noise generating facilities.*
> - *Improve the acoustical insulation of residential units where setbacks and sound barriers do not sufficiently reduce noise.*
> - *Establish speed limits and limits on hours of operation of rail and transit systems.*

Response b): Each of the jurisdictions in Calaveras County has an adopted General Plan to guide land use and development decisions, including circulation patterns and improvements. The RTP projects will respond to growth anticipated in adopted general plans, as well as address safety and rehabilitation issues necessary to maintain the existing transportation system. The RTP projects will also enhance mobility primarily within established communities, and provide connectivity between established communities.

RTP projects would be generally compatible with existing land uses and policies; however, specific RTP projects, such as improvements to existing transportation corridors could conflict with county and city land use policies and designations by encroaching on incompatible land

uses. Each individual RTP project will be evaluated by the implementing agency on a project-specific level during the design and engineering stage of the process. Each RTP project will be reviewed for conformance with the general plan of the jurisdiction(s) in which the project will be located, as well as conformance with the policies of the RTP.

The RTP is intended to accommodate growth envisioned by the General Plans by providing multimodal circulation infrastructure necessary for orderly growth. The RTP includes policies that ensure consistency with local plans and regulations and a conformance review of individual RTP projects will ensure consistency with adopted policies and regulations. The RTP would not result in significant conflicts with plans, policies, and regulations adopted to mitigate an environmental effect. Implementation of the proposed project would have a ***less than significant*** impact relative to this issue.

Response c): Calaveras County does not have an applicable habitat conservation plan or natural community conservation plan. Implementation of the proposed project would have ***no impact*** relative to this issue.

XI. MINERAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			X	
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?			X	

BACKGROUND DISCUSSION

Mineral Resource Classification

Pursuant to the Surface Mining and Reclamation Act of 1975 (SMARA), the California State Mining and Geology Board oversees the Mineral Resource Zone (MRZ) classification system. The MRZ system characterizes both the location and known/presumed economic value of underlying mineral resources. The mineral resource classification system uses four main MRZs based on the degree of available geologic information, the likelihood of significant mineral resource occurrence, and the known or inferred quantity of significant mineral resources. The four classifications are described in Table 13 below.

Table 13: Mineral Resource Classification System

CLASSIFICATION	DESCRIPTIONS
MRZ-1	Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
MRZ-2	Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
MRZ-3	Areas containing mineral deposits, the significance of which cannot be evaluated.
MRZ-4	Areas where available information is inadequate for assignment to any other MRZ classification.

SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION DIVISION OF MINES AND GEOLOGY, 2000.

Mineral Resources

Calaveras County has a long history of mining activity and continues today to host several mineral extraction operations in addition to reclamation of former mining operations. Calaveras County is rich with mineral resources due to its location within the Sierra Nevada foothills and the Mother Lode belt. Below is a brief discussion of known mineral resources in the County.

Asbestos and Chromite. Asbestos and chromite reserves are located in three general areas. Small reserves of asbestos and chromite are thought to exist north of City of Angels Camp, east of SR 49. Additional small reserves are known northwest of San Andreas, near Valley Springs. Former asbestos mining activities located approximately five miles southeast of Copperopolis is now being utilized to accept asbestos-containing waste and waste tires.

Gold. Deposits of gold-bearing rock are distributed over most of Calaveras County. The history of gold in the region suggests that significant reserves may exist. CDMG information suggests

that reserves of lode gold exist in the Royal Mountain King Mine area just north of Copperopolis and the Carson Hill mine located south-southeast of City of Angels Camp.

Potential placer gold deposits exist throughout the county. Placer gold occurs primarily in river deposits; consequently, most major drainages will have potential for such deposits. In particular, the Mokelumne River drainage in the northwestern part of the county and the drainages east of City of Angels Camp are believed to contain placer gold deposits. Finally, several placer gold deposits are thought to exist in the eastern portion of the county; however, the significance of such deposits is not clear.

CDMG information points out that remnants of ancient river channels that have been covered by volcanic or other geologic occurrences may contain significant placer gold deposits. Although many such areas have been prospected in the past, so-called "auriferous gravels" remain a potential source of economically viable placer gold.

Limestone. Significant reserves of limestone have been classified in the Kentucky House, Calaveritas, and Cave City deposits, located south of San Andreas. In addition, small limestone deposits have been identified generally east-southeast of San Andreas. Additional limestone deposits lie both west and south of Murphys, near the Tuolumne County border. Some of the potential limestone deposits also have the potential for talc and silica deposits as well.

Sand and Gravel. The primary sand and gravel deposits lie in the northwestern portion of Calaveras County, generally west of Valley Springs. There are three potentially active sand and gravel mines, one is located generally south of Valley Springs, one is located northeast of Valley Springs, and a third is located south of Murphys.

Mining Operations

The Office of Mine Reclamation periodically publishes a list of mines regulated under SMARA that is generally referred to as the AB 3098 List. The Public Contract Code precludes mining operations that are not on the AB 3098 List from selling sand, gravel, aggregates or other mined materials to state or local agencies. As of May 17, 2012, there are 11 mines on the AB 3098 list in Calaveras County. Table 14 identifies the active mines located in the county.

Table 14: AB 3098 List – Active Mines in Calaveras County

MINE ID	MINE NAME	MINE OPERATOR
91-05-0001	SNYDER CLAY PIT	SNYDER CLAY PIT
91-05-0005	JOHN HERTZIG SAND & GRAVEL	JOHN W. HERTZIG
91-05-0006	ROBIE RANCH GRAVEL	7/11 MATERIALS, INC.
91-05-0008	VALLEY SPRINGS CLAY PIT	VALLEY SPRINGS CLAY PIT, LLC
91-05-0009	GNM #6 SHALE QUARRY	LEHIGH SOUTHWEST CEMENT COMPANY
91-05-0010	QUARRY # 7	LEHIGH SOUTHWEST CEMENT COMPANY
91-05-0012	CATARACT LIMESTONE QUARRY	LEHIGH SOUTHWEST CEMENT COMPANY
91-05-0013	WOLIN & SONS AGGREGATE	CHARLES LARSON CONSTRUCTION
91-05-0014	HOGAN QUARRY	FORD CONSTRUCTION COMPANY, INC.
91-05-0016	MCCARTY PIT	FORD CONSTRUCTION COMPANY, INC
91-05-0018	CARSON HILL ROCK PRODUCTS	CARSON HILL ROCK PRODUCTS

SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION DIVISION OF MINES AND GEOLOGY, 2012.

Mineral Regulations and Programs

The California Surface Mining and Reclamation Act (SMARA). The California Surface Mining and Reclamation Act (SMARA of 1975 requires classification of land into Mineral Resources Zones (MRZs), according to the known or inferred mineral potential of that area. SMARA is set forth in the California Public Resources Code (PRC), Division 2, Chapter 9, Sections 2710, et seq.

The State requires each County to implement SMARA policies. These policies apply to the surface mining operations as well as specific measures to be employed in grading, backfilling, resoiling, revegetation, soil compaction, soil erosion control, water quality and watershed control, waste disposal, and flood control.

State policies do not include aspects of regulating surface mining operations that are solely of local concern, and not of statewide or regional concern, such as hours of operation, noise, dust, fencing, and aesthetics. These factors are normally administered and regulated by the local lead agency. The Calaveras County serves as the local lead agency for regulating mining activities pursuant to SMARA.

RESPONSES TO CHECKLIST QUESTIONS

Response a): Some improvements identified in the RTP are located in the vicinity of land that that contains mineral resource. Implementation of the improvements identified in the RTP would not cause changes resulting in conversion of any mining operations into a different use. Additionally, the individual improvement projects will improve transportation systems in the County, which would provide a beneficial impact for mining operations. Implementation of the proposed project will have a ***less than significant*** impact on mineral resources.

Response b): There are currently 11 mining operations in Calaveras County according to the May 2012 AB 3098 list. The proposed project will not result in the loss of availability of any of these operational sites. Implementation of the proposed project will have a ***less than significant*** impact on mineral resource site.

XII. NOISE

Would the project result in:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?		X		
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X	
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?			X	

BACKGROUND

The most common noise sources in the county are motor vehicles, including: automobiles, trucks, buses, and motorcycles. The noise generated from vehicles within the county is governed primarily by the number of vehicles, type of vehicles (mix of automobiles, trucks, and other large vehicles), and their speed. The highest noise levels are adjacent to larger and more heavily traveled roadways including SR 12, SR 49, and SR 26. Noise levels that would affect noise sensitive land uses such as residences, schools, and hospitals also occur along major arterials.

Traffic Noise

Traffic noise level contours for traffic conditions and distances from the center of the roadways to the respective contours were computed for Calaveras County in 2008 as part of the General Plan Update process using the Federal Highway Administration Traffic (FHWA) Noise Prediction Model (FHWA-RD-77-108) and are depicted below in Table 15. The model uses compute Leq values, which are converted into CNEL using guidance from the FHWA.

Table 15: Traffic Noise Contour Distance (feet) from Roadway Centerline

ROADWAY	70 LDN	65 LDN	60 LDN	ROADWAY	70 LDN	65 LDN	60 LDN
Pool Station Rd	4	12	37	Olive Orchard Rd	4	13	42
Gold Strike Rd	4	11	36	Warren Rd	1	3	9
Rail Road Flat Rd	6	19	61	Evergreen Rd	1	3	8
Ridge Rd	3	10	31	Southworth Rd	1	5	15
Jesus Maria Road	2	6	18	Church Hill Rd	5	15	48
Murphy's Grade Rd	21	65	207	Big Trees Rd	18	57	182
Sheep Ranch Rd	2	7	21	Blagen Rd	11	35	109
Parrotts Ferry Rd	8	27	84	Vista del Lago	13	41	128
O'Byrnes Ferry Rd	14	39	124	Hartvickson lane	8	24	77
Milton Rd	5	14	45	Silver Rapids Rd	3	11	35
Jenny Lind Rd	2	5	17	Pine St	2	6	18
Burson Rd	2	7	22	Scott St	6	18	57
Camanche Pkwy S	2	8	24	Meadow Dr	6	18	58
Paloma Rd	4	12	38	Sierra Pkwy	1	2	5
Baldwin Rd	7	23	73	Chesnut St	4	12	39
Avery Sheep Ranch Rd	1	2	8	Daphne St	27	85	269
Caleveritas Rd	1	3	10	Reeds Turnpike	8	25	80
Fourth Crossing rd	10	31	98	Russells Rd	2	5	15
Hogan Dam Rd	5	15	47	Broadway St	4	12	38
Campo Seco Rd	0	1	4	Lewis Ave	5	14	45
Watertown Rd	2	8	24	Pope St	5	17	55
Double Springs Rd	1	2	6	Roberts Ave	2	5	17
South Petersburg Rd	1	5	15	Treat Ave	9	28	89
Messing Rd	1	4	12	Main Street West Point	5	17	53
Pettinger Rd	3	11	34	Main Street Mokelumne Hill	8	26	82
Lime Creek Rd	1	2	6	Lafayette St	1	2	6
Michel Rd	4	14	44	Manuel St	24	75	237
Whiskey Slide Rd	2	5	17	Lilac Dr	1	2	8
East Murray Creek Rd	0	1	5	Pine Dr	3	9	29
Swiss Ranch Rd	0	1	3	Country Club Dr	2	7	24
Associated Office Rd	1	4	13	Country Club Dr	4	14	45
Blue Mountain Rd	4	12	37	Church St	4	12	38
Bald Mountain Rd	2	5	17	Algiers St	2	6	18
Independence Rd	1	3	10	Mitchler Ave	2	5	16
Rolleri Bypass rd	2	6	20	Meadowmont Way	5	15	47
French Gulch Rd	3	8	25	Copper Cove	8	26	81
Six Mile Rd	2	5	17	Little John Rd	8	26	83
Armstrong Rd	1	2	6	Main St San Andreas	5	17	54
Red Hill Access Rd	1	4	14	Mountain Ranch Rd	11	33	105
Pennsylvania Gulch Rd	5	15	47	Main Street Vallecito	19	61	194
Skunk Ranch Rd	2	7	21	Angels Rd	4	14	43
San Domingo Rd	0	1	3	Moran Rd	28	87	276
Dogtown Rd	2	5	15	Avery Hotel Rd	4	13	41
Old Gulch Rd	1	2	6	Dunbar Rd	4	12	37
Hawver Rd	2	5	17	Boards Crossing	3	11	34
Gregory Rd	0	1	3	Court St	6	18	58

SOURCE: CALAVERAS COUNTY, 2008.

Airport Noise

The greatest potential for noise intrusion occurs when aircraft land, take off, or run their engines while on the ground. There are three primary sources of noise in a jet engine: the exhaust, the turbomachinery, and the fan. The noise associated with general aviation propeller aircraft (piston and turbo-prop) is produced primarily by the propellers and secondarily from the engine and exhaust.

Aircraft noise affecting a county is generated by aircraft operations at the Calaveras County Airport (Maury Rasmussen Field). The airport is a public general aviation airport located four miles southeast of the central business district of San Andreas. The airport covers an area of 93 acres and contains one runway (13/31) that is 3,603 feet in length, 60 feet wide, and has two

helipads (65 feet by 65 feet). There are currently 53 fixed base aircraft at the airport and an estimated 32,000 annual operations (87 per day).

Construction

Activities associated with construction represent an additional source of intermittent noise at sites located throughout the County. The construction equipment often generates high levels of noise at these sites; however, this noise is usually short-term. The construction-related noise is often variable and fluctuates depending on the phase of construction, the type of equipment used, the length of use, and the distance of the noise source and the receptor. Typical noise levels of construction equipment are shown in Table 16.

Table 16: Construction Equipment Noise Levels

EQUIPMENT	TYPICAL NOISE LEVEL (dBA) 50 FEET FROM SOURCE		DISTANCE TO NOISE CONTOURS (FEET, dBA L_{EQ})		
	L_{MAX}	L_{EQ}	70 dBA	65 dBA	60 dBA
Air Compressor	80	76	105	187	334
Auger/Rock Drill	85	78	133	236	420
Backhoe/Front End Loader	80	76	105	187	334
Blasting	94	74	83	149	265
Boring Hydraulic Jack/Power Unit	80	77	118	210	374
Compactor (Ground)	80	73	74	133	236
Concrete Batch Plant	83	75	94	167	297
Concrete Mixer Truck	85	81	187	334	594
Concrete Mixer (Vibratory)	80	73	74	133	236
Concrete Pump Truck	82	75	94	167	297
Concrete Saw	90	83	236	420	748
Crane	85	77	118	210	374
Dozer/Grader/Excavator/Scraper	85	81	187	334	594
Drill Rig Truck	84	77	118	210	374
Generator	82	79	149	265	472
Gradall	85	81	187	334	594
Hydraulic Break Ram	90	80	167	297	529
Jack Hammer	85	78	133	236	420
Impact Hammer/Hoe Ram (Mounted)	90	83	236	420	748
Pavement Scarifier/Roller	85	78	133	236	420
Paver	85	82	210	374	667
Pile Driver (Impact/Vibratory)	95	88	420	748	1,330
Pneumatic Tools	85	82	210	374	667
Pumps	77	74	83	149	265
Truck (Dump/Flat Bed)	84	80	167	297	529

SOURCES: FHWA 2006

Groundborne Vibration

There are no federal, state, or local regulatory standards for ground-borne vibration. However, various criteria have been established to assist in the evaluation of vibration impacts. However, both the Federal Transit Administration and the California Department of Transportation (Caltrans) have developed vibration criteria based on potential structural damage risks and human annoyance. These criteria differentiate between transient and continuous/frequent vibration sources. Transient sources of ground-borne vibration include intermittent events, such as blasting; whereas, continuous and frequent events would include the operations of equipment, including construction equipment, and vehicle traffic on roadways (Caltrans 2002(b), 2004).

The ground-borne vibration criteria often used for evaluation of potential structural damage are based on building classifications, which take into account the age and condition of the building. For instance, for residential structures and newer buildings, Caltrans considers a minimum peak-particle velocity (ppv) threshold of 0.25 inches per second (in/sec) for transient sources and 0.04 in/sec for continuous/frequent sources to be sufficient to protect against building damage. Continuous ground-borne vibration levels below approximately 0.02 in/sec ppv are unlikely to cause damage to any structure. In terms of human annoyance, continuous vibrations in excess of 0.04 in/sec ppv and transient sources in excess of 0.25 in/sec ppv are identified by Caltrans as the minimum perceptible level for ground vibration. Short periods of ground vibration in excess of 2.0 in/sec ppv can be expected to result in severe annoyance to people. Short periods of ground vibration in excess of 0.1 in/sec ppv (0.2 in/sec ppv within buildings) can be expected to result in increased levels of annoyance (Caltrans 2002[b], 2004).

RESPONSES TO CHECKLIST QUESTIONS

Responses a, c-d):

Traffic Noise: The RTP does not directly cause a noise impact, although it could indirectly have noise impacts as a result of development and operation of individual improvements during both the short and long-term. While many of these projects will likely have no effect on the operational noise generation of the facility, some improvement projects, which involve widening, or other capacity enhancements to existing facilities, could affect noise-sensitive land uses. Noise-sensitive land uses could be exposed to noise in excess of normally acceptable noise levels or increases in noise as a result of the operation of expanded or new transportation facilities.

The Calaveras County and the City of Angels Camp have adopted Noise Elements of their General Plans that establish noise-related policies that, when implemented, protect sensitive receptors from significant noise. The policies that are laid out in the Noise Element(s) are consistent with federal and state regulations designed to protect noise sensitive receptors. During the design process, the implementing agency would be responsible for ensuring that the project is designed consistent with adopted policies and state and federal regulations. Although the policy and regulatory controls for noise-related impacts are in place in the planning area, subsequent improvement projects could result in an increase in traffic noise levels. For most projects, consistency with the adopted policies and established regulations would help to reduce exposure of sensitive receptors to transportation noise levels. In addition, the following mitigation measure would require a project-level noise evaluation for each individual project that is located near a sensitive receptor. The noise evaluation would identify areas that would have elevated noise levels as a result of the project and require measures to attenuate the noise to an acceptable level. Such measures could include constructing earth berms, sound walls, establishing buffers, or improving acoustical insulation in residential units. Implementation of this mitigation measure would reduce this impact to a **less-than-significant** level.

> ***Mitigation Measure 30:*** *Prior to and during construction, the implementing agency shall take steps to identify and protect sensitive receptors from construction noise and vibration impacts, as feasible. Measures to reduce noise and vibration effects to comply with all local noise control and noise rules, regulations, and ordinances may include, but are not limited to:*
>
> - *Limit noise-generating construction activities, excluding those that would result in a safety concern to workers or the public, to the least noise-sensitive daytime hours, which is generally 6am to 9pm.*
> - *Construct temporary sound barriers to shield noise-sensitive land uses.*

- *Locate noise-generating stationary equipment (e.g., power generators, compressors, etc.) at the furthest practical distance from nearby noise-sensitive land uses.*
- *Phase demolition, earth-moving and ground-impacting operations so as not to occur in the same time period.*
- *Use of equipment noise-reduction devices (e.g., mufflers, intake silencers, and engine shrouds) in accordance with manufacturers' recommendations.*
- *Substitute noise/vibration-generating equipment with equipment or procedures that would generate lower levels of noise/vibration. For instance, in comparison to impact piles, drilled piles or the use of a sonic or vibratory pile driver are preferred alternatives where geological conditions would permit their use.*
- *Other measures deemed appropriate by the implementing agency.*

Construction Noise: Noise levels typically associated with roadway construction equipment and distances to predicted noise contours are discussed in the background above. As indicated, maximum intermittent noise levels associated with construction equipment typically range from approximately 77 to 95 dBA L_{max} at 50 feet. Pile driving and demolition activities involving the use of pavement breakers and jackhammers, and are among the noisiest of activities associated with transportation improvement and construction projects. Depending on equipment usage and duration, average-hourly noise levels at this same distance typically range from approximately 73 to 88 dBA L_{eq}. Distances to predicted noise contours would, likewise, vary depending on the specific activities conducted and equipment usage. Delivery vehicles, construction employee vehicle trips, and haul truck trips may also contribute to overall construction noise levels.

Increases in ambient noise levels associated with construction projects located near sensitive land uses can result in increased levels of annoyance, as well as potential violation of local noise standards. Construction activities occurring during the more noise-sensitive nighttime hours would be of particular concern, given the potential for increased sleep disruption. Impacts to sensitive receptors resulting from proposed transportation improvement and construction projects would depend on several factors, such as the equipment used, surrounding land uses, shielding provided by intervening structures and terrain, and duration of construction activities.

The following mitigation measure would limit construction to the daytime hours, to the extent feasible, and would require equipment to be properly maintained and muffled. Furthermore, this mitigation measure provides resident notification requirements, and measures to resolve noise complaints. Implementation of this mitigation measure would reduce this impact to a **less-than-significant** level.

> ***Mitigation Measure 31:*** *The implementing agencies shall take steps to identify and reduce the effects of construction on the roadway system throughout the construction period. If needed, the implementing agency should develop a traffic control plan to minimize construction impacts to the traveling public and emergency response.*

Responses b): Groundborne vibration and noise levels associated with highway traffic is typically considered to pose no threat to buildings and potential annoyance to people would be minimal. Traffic vibration levels are typically highest associated with truck passbys. Automobile traffic normally generates vibration peaks of one-fifth to one-tenth that of trucks. Based on measurements conducted by Caltrans, even the highest truck generated vibrations, which were measured at approximately 16 feet from the centerline of the near travel-lane, were not found

to exceed 0.08 in/sec. This level coincides with the maximum recommended "safe level" for ruins and historical structures (Caltrans 2002(b), 2004).

Construction activities would, however, require the use of off-road equipment, which could adversely affect nearby land uses. Groundborne vibration levels commonly associated with construction equipment typically associated with transportation projects are summarized in the background discussion above. As indicated, the highest groundborne vibration levels would be generated by the use of pile drivers and vibratory rollers. Groundborne vibration levels associated with proposed construction improvement projects could potentially exceed recommended criteria for structural damage and/or human annoyance (0.2 and 0.1 in/sec ppv, respectively) at nearby existing land uses.

Mitigation Measure 31 would limit construction to the daytime hours, to the extent feasible, and would require use of equipment with reduced equipment noise/vibration levels, to the extent practical. The level of mitigation would be project and site specific and would include measures normally required by Caltrans, as well as requirements under the General Plan Noise Elements and Noise Ordinances of the applicable jurisdictions. Implementation of this mitigation measure would reduce this impact to a ***less-than-significant*** level.

Responses e-f): The proposed project includes improvements to the Calaveras County Airport (Maury Rasmussen Field), which is a public airport. The improvements are consistent with the Airport's planning documents. These improvements are system preservation and safety improvements, and none of these improvements would expose people residing or working in the area to excessive noise levels The proposed project does not affect any private airstrips. Implementation of the proposed project would have a ***less-than-significant*** impact relative to this issue.

XIII. POPULATION AND HOUSING

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?			X	
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			X	

BACKGROUND

The following information provides the most recent demographic profile of the County and City of Angels Camp. Information was taken from the 2010 Census, Calaveras County Profile (Visitors Bureau 2009), and Department of Finance (2010).

Populations

In 2010 the California Department of Finance (DOF) reported the County population at 45,642, which represents a 1.4 percent per year growth rate since 2000. Table 17 provides population numbers for Calaveras and adjacent Counties from 2000 to 2010 based on DOF estimates for each year. Table 4 shows relatively slow growth in Calaveras and Stanislaus counties since 2000. Alpine, Amador and Tuolumne have shown less than one percent growth during the same 10-year period.

Table 17: Historical Population Trends in Calaveras and Adjacent Counties

COUNTY	2010	2009	2008	2007	2006	2005	2004	2000	ANNUAL AVERAGE
Calaveras	**45,642**	**45,562**	**45,702**	**45,638**	**45,316**	**44,773**	**43,924**	**40,658**	**1.4%**
Alpine	1,176	1,180	1,208	1,248	1,255	1,208	1,266	1,203	-0.2%
Amador	38,117	37,905	37,864	38,085	37,964	37,722	37,147	35,205	0.9%
Stanislaus	515,954	512,052	510,396	508,372	503,548	498,020	490,283	449,767	1.6%
Tuolumne	55,324	55,258	56,060	56,133	56,558	56,452	56,369	54,587	0.2%

SOURCE: CALIFORNIA DEPARTMENT OF FINANCE (DOF) REPORT E-1 COUNTY POPULATION TRENDS

Population Growth Forecasts

Table 1.4 from the RTP shows that DOF projects a 9 percent increase for Calaveras County between 2012 and 2020, and approximately 13 percent between 2020 and 2035. The growth projection for 2035 results in a countywide population estimate of 55,541 persons.

TABLE 1.4 PROJECTED POPULATION GROWTH FOR CALAVERAS COUNTY 2000 - 2035							
	2000	2012	% Change 2000-2012	2020	% Change 2012-2020	2035	% Change 2020-2035
Calaveras County	40,658	44,840	10.3%	49,007	9.3%	55,541	13.3%
Source: California Department of Finance – Interim Population Projections May 2012.							

It is important to consider other population groups when planning transportation services. These groups include the elderly and disabled, low income, and youth. Data from the American Community Survey for 2008 to 2010 show 17 percent of Calaveras population with a disability, approximately 22 percent of the workforce below the poverty line, and 55 percent of workers earned less than $10,000 annually. These statistics add to the number of people relying on alternative transportation such as transit.

Employment

The California State Employment Development Department (EDD) produces employment data based on survey information of the number of individuals living and working in the County during a given year. The latest information for Calaveras County reports the number of employed persons was 16,780 in March 2012. Table 18 provides a 3.5 year summary of the total labor force, number employed and unemployed, and the unemployment rate for the County since 2008. The data shows a steady decline in employment and a rise in the unemployment rate since the economic downturn beginning in 2008. Between August 2011 and March 2012 the unemployment rate fell to 14.8 percent. This is a positive trend given the recent downturn in the economy.

Table 18: Calaveras County Employment

YEAR	LABOR FORCE	NUMBER EMPLOYED	NUMBER UNEMPLOYED	UNEMPLOYMENT RATE
August – March 2012	19,960	16,780	2,910	14.8%
January – July 2011	19,580	16,360	3,220	16.4%
Annual 2010	20,090	16,960	3,130	15.6%
Annual 2009	20,350	17,510	2,830	13.9%
Annual 2008	20,640	18,860	1,770	8.6%

SOURCE: CALIFORNIA EMPLOYMENT DEVELOPMENT DEPARTMENT (EDD) 2010

The EDD also lists the fastest growing occupations in Calaveras which include teachers, computer analysts, mental health counselors, fitness trainers, and veterinary assistants. The number of employees is indicated where information is available.

Employment Projections

According to the EDD, between 2008 and 2018, total employment in the "Mother Lode Region" (Amador, Calaveras, Mariposa, and Tuolumne counties) is projected to increase by 2,000 workers or four percent to a total of 53,200 workers. To distribute this projected growth to Calaveras County over the next 10 years the data shows that Calaveras County had approximately 40 percent of the total MLR employment (20,640 of 51,130 workers) in 2008. If this ratio (40 percent) is maintained through 2018, the County will experience an increase of approximately 800 additional workers (40 percent of 2,000). The largest additions to

employment through 2018 are projected in the transportation sector, professional and business sector, education and health care sector, and local government.

Housing

In 2009, the US Census Bureau reported a total of 27,438 housing units in Calaveras County. The homeownership rate between 2005 and 2009 was reported at approximately 80 percent. Housing units in multi-unit structures totaled approximately 3.7 percent or 1,015 units. The occupancy rate for homes was 2.55 persons and the number of residential building permits issued in 2009 was reported at 58.

Planned Development

The following development projects represent the types of residential and/or commercial development being considered throughout Calaveras County. Given the current economic conditions, some delay or actual cancellation has occurred. The development that has been approved does not affect the baseline land use assumptions used in the TDM. Future forecasts will consider the proposed changes in land use as part of the General Plan development and approval process.

The following information shows the status of planned development by District and transportation facility:

District 1 / District 5 (SR 12)

Development	Units	Status Code*
Charboneau Estates (Valley Springs)	64 lots	(1)
Crestview Estates (near Wallace)	37 lots	(1) (6)
EP & G Properties (Spring Valley Estates (1)	35 lots	(1) (6)
Las Tres Marias (near Wallace)	15 lots	(3)
Meadow View Estates (Widhalm)	11 lots	(1) (6)
Mendonca (near Wallace)	6 lots	(1)
Mission Ranch (Valley Springs)	219 lots; 2 commercial parcels	(2)
Stamper Ranch	21 lots	(3) (6)
Ventana	50 lots	(1)

*(1) In approval process – application incomplete or missing baseline studies for CEQA review
(2) In approval process – review is ongoing
(3) Tentative Map approved.
(4) Final Map approved
(5) Map is expired
(6) Land ownership has changed or Application has changed hands. Status is undertain
(7) Under Construction

District 1 / District 5 (SR 26)

Development	Units	Status Code*
Calaveras River Estates	5 lots	(3)
Calaveras River Heights	25 lots	(1) On hold
Courtyard at La Contenta	Shopping Center	(2)
Del Verde Subdivision	91 lots	(1) (6)
Gold Creek Estates	385 lots	(4) (7) in phases
Hogan Oaks 1 and Hogan Oaks 2	122 lots	(1)
New Hogan lake Estates (Platner)	83 lots	(3) (4) in phases
North Vista Plaza	156 lots	(4) (7)

Old Golden Oaks	96 lots	(1)
Olive Orchard Estates	50 lots	(4) (7)
George Rose	6 lots	(3)
Vista Plaza II	38 lots	(3) (4) in phases
Vosti Properties	24 lots	(3) extension of time approved
Bolin Property	18 lots	(1)
Briski Property	25 lots	(1)
Schroven Property	20 lots	(1)
Zinfandel Estates (Robinson)	4 lots	(1)

*(1) In approval process – application incomplete or missing baseline studies for CEQA review
(2) In approval process – review is ongoing
(3) Tentative Map approved.
(4) Final Map approved
(5) Map is expired
(6) Land ownership has changed or Application has changed hands. Status is undertain
(7) Under Construction

District 4 (City of Angels/Murphys/Arnold SR 49 and SR 4)

Development	Units	Status Code*
Forest Meadows (various applications)	220	(1) (2)
Murphys Rocky Hill (in Murphys)	43	(2)
Mitchell Ranches (in Vallecito)	113	(2)
Coyote Creek (near Douglas Flat)	104	(1)
Sutton Enterprises on SR 49 at Melones)	14	(1)
(Deaver Projects on SR 49 at Melones):		
Nielsen	5	(2)
Rasmussen	5	(2)
Wilson	4	(2)
Field	4	(2)
Novogradac (Camp Connell area)	15	(2)
Khosla (Sheep ranch Road)	44	(1)

*(1) In approval process – application incomplete or missing baseline studies for CEQA review
(2) In approval process – review is ongoing
(3) Tentative Map approved.
(4) Final Map approved
(5) Map is expired
(6) Land ownership has changed or Application has changed hands. Status is undertain
(7) Under Construction

District 4 (Copperopolis SR 4)

Development	Units	Status Code*
Copper Town Square	39 to 69 units and commercial space	(4) in phases
Copper Town Square Condos	May be included in total above	
Sawmill Lake	800 units and Village	(2)
Vineyard Estates	18 lots	(2)
Saddle Creek	1,650 lots	(3) (4) phases
Oak Canyon	2,275 lots, 400 permanent units, 800 transient	(3) (6)
Tuscany Hills	300 lots	(3) (6)
Copper Valley Ranch	2,400 lots	(1) (2)

*(1) In approval process – application incomplete or missing baseline studies for CEQA review

(2) In approval process – review is ongoing
(3) Tentative Map approved.
(4) Final Map approved
(5) Map is expired
(6) Land ownership has changed or Application has changed hands. Status is undertain
(7) Under Construction

RESPONSES TO CHECKLIST QUESTIONS

Response a): Given the historical and current population, housing, and employment trends, growth in the region is inevitable; however, the rate of growth is considered low compared to the larger metropolitan areas of the Central Valley (i.e. Stockton and Sacramento). Two principal factors that account for population growth are natural increase and net migration. The average annual birth rate for California is expected to be 20 births per 1,000 population compared to 10 births per 1,000 population in West Virginia, the state with the lowest projected birth rate. Additionally, California is expected to attract more than one third of the Country's immigrants. Other factors that affect growth include the cost of housing, the location of jobs, the economy, the climate, and also, transportation.

The RTP has been planned to accommodate anticipated levels of growth, including growth associated with adopted general plans. The RTP does not involve approvals associated with any development projects, and does not provide infrastructure that could facilitate additional development in the region. The RTP does not induce growth beyond the growth that is planned or being planned by local jurisdictions both locally and regionally.

CCOG does not make land use approvals associated with this growth, nor do they have the authority to make local land use decisions. Implementation of the RTP will have a ***less than significant*** impact on this issue.

Responses b-c): The RTP would not, in and of itself, displace substantial numbers of housing units or people. The majority of RTP projects involve work within or adjacent to existing rights-of-way and would not involve acquisition of land and displacement of substantial numbers of persons or housing. This is true of most highway and street widening projects, and modifications to intersections/interchanges. These transportation projects will generally not require the displacement of any residences or businesses since the right-of-way has already been acquired.

Some of the RTP projects may involve land acquisition. While most of the additional right-of-way acquisition is anticipated to be vacant or undeveloped land, at a few isolated locations the land necessary for the improvement may include existing residential units or businesses. This is anticipated to be rare and involve a limited number of residences or businesses.

State and federal law require due compensation for property taken to carry out the infrastructure projects. Also required by law, relocation and assistance must be provided to displaced residents and businesses in accordance with the Federal Uniform Relocation and Real Property Acquisition Policies Act of 1970 and the State of California Relocation Assistance Act.

As noted above, RTP projects would not result in displacement or relocation of a substantial number of homes, businesses, or people. Growth planned in the general plans would result in additional housing opportunities and would more than offset any units removed in association with RTP projects. Therefore, impacts related to a substantial displacement of housing units or persons as a result of the RTP are ***less than significant***.

XIV. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:			X	
Fire protection?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?			X	

BACKGROUND DISCUSSION

Fire Protection

Calaveras County is divided into 11 different fire districts, including: Mokelumne Hill Fire Protection District, Murphys Fire Protection District, Copperopolis Fire Protection District, West Point Fire Protection District, Jenny Lind Fire District, Ebbetts Pass Fire District, San Andreas Fire Protection District, Foothill Fire Protection District, Altaville-Melones Fire Protection District, Central Calaveras Fire & Rescue Protection District, and the Angels Camp Fire District. In addition to the county districts, the California Department of Forestry and Fire Protection (CDF, also referred to as Cal Fire) serves the county. Fire response facilities in the County are as follows:

- Fire Department: These facilities are operated by local town/community Fire Protection Districts.
- Forest Fire Station: These facilities are operated primarily by the CDF and include Hermit Springs Forest Fire Station, West Point Forest Fire Station, Esperanza Forest Fire Station, Arnold Forest Fire Station, Valley Springs Forest Fire Station, Murphys Forest Fire Station, Altaville Forest Fire Station and Copperopolis Forest Fire Station.
- Look Out: These facilities are operated by the CDF and include the Blue Mountain Look Out in Arnold, the Sierra Vista Look Out in San Andreas, and the Fowler Peak Look Out in City of Angels Camp.
- CDF Regional Unit HQ: The Tuolumne-Calaveras Regional Unit HQ is the only facility in this category. This facility is located in San Andreas and is operated by the CDF.
- US Forest Service: Two U.S. Forest Service facilities are located in the county. They are Stanislaus National Forest Dorrington Fire Station, and Stanislaus National Forest

Calaveras District Station. Both of these facilities are operated by the United States Forest Service.

Police Protection

Sheriff's Department. The Calaveras County Sheriff's Department acts provides law enforcement to approximately 95 percent of the County. The Sheriff's Department consists of the main sheriff's office and County Jail located in San Andreas at the Government Center, as well as five substations: Valley Springs Substation with two patrol beats, Copperopolis Substation with one patrol beat, West Point Substation with one patrol beat, Arnold Substation with one patrol beat, and Mokelumne Hill Substation with one patrol beat.

The Sheriff's Department runs the Office of Emergency Services (OES), the Marine Safety Hazardous Materials, and the Explosives Ordinance Disposal (EOD) Unit, all located at the County Airport. The County Bomb/Haz Mat and EOD team provides services for four counties: Calaveras, Amador, Tuolumne, and Alpine. The Investigation Division Office is also overseen by the Sheriff's Department and is located at separate offices in San Andreas.

City of Angels Camp Police Department. The City of Angels Camp maintains a police department consisting of 6 sworn officers. The police department is located at 200 Monte Verda Street and totals 3,000 square feet.

California Highway Patrol. The California Highway Patrol (CHP) provides law enforcement services, primarily traffic enforcement, on highways and roadways within the county. These services include traffic control, accident investigation, and licensing of vehicles. The CHP maintains an office in San Andreas.

Schools

Schools within the Calaveras County Office of Education jurisdiction are divided into four school districts: Calaveras Unified School District, Bret Harte Union High School District, Mark Twain Union Elementary District, and Vallecito Union Elementary District. Additionally, the County Office of Education coordinates operation of the county's Community Schools.

Parks

There is little recreation in the form of local parks in the region, and the County does not directly maintain a system of park and recreation facilities. The County owns Murphys Park, located in the town of Murphys. Ownership of other publicly accessible recreation facilities in Calaveras County is divided among a wide variety of public agencies, such as school districts, and private foundations/clubs, such as Veterans districts.

Other Public Facilities

Libraries: The Calaveras County Library System is a countywide system consisting of a Central Library located in San Andreas and seven outlet facilities located in the communities of City of Angels, Arnold, Copperopolis, Mokelumne Hill, Murphys, Valley Springs and West Point.

Hospitals: Calaveras County is served by Mark Twain St. Joseph's Hospital (MTSJH) located in San Andreas. Mark Twain St. Joseph's Hospital is a 48-bed hospital providing inpatient acute care and emergency services. The hospital's medical staff averages 85 individuals and represents a range of specialties. In addition, Sonora Regional Medical Center clinics serve as urgent care during normal business hours.

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b), c), d), e): The improvements identified in the RTP include a variety of transportation improvements that will not result in an increased need for any public services or facilities. The proposed project would not result in an increased demand, or require the need for expansion of the existing recreational facilities beyond what is planned in the General Plan. Implementation of the proposed project will have a ***less than significant impact*** on public services.

XV. RECREATION

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

BACKGROUND DISCUSSION

Federal Lands Recreation

The Federal government is a major landowner in Calaveras County, with approximately 85,000 acres or 13 percent of the county's land area.

U.S. Forest Service (USFS). The Stanislaus National Forest–one of California's oldest National Forests established 1897–includes substantial portions of Alpine, Calaveras, Mariposa, and Tuolumne Counties. Within the Stanislaus National Forest, the Calaveras Ranger District encompasses the SR 4 corridor in both Calaveras and Alpine Counties. The Calaveras Ranger District provides numerous recreational opportunities, including 20 developed campgrounds and 279 miles of hiking trails.

U.S. Bureau of Land Management (BLM). BLM owns 34,033 acres in Calaveras County, consisting mostly of scattered low- to mid-elevation foothill lands. The Army Corps of Engineers also owns lands in association with the Bureau for operating BLM reservoirs. BLM land holdings in Calaveras County are of highly variable shape and size. Residents adjacent to BLM land parcels often use them informally for hiking, and the parcels serve as refuges for biological diversity.

State Lands Recreation

Calaveras Big Trees State Park straddles the Calaveras-Tuolumne County line along the North Fork Stanislaus River. About 40 percent of the park's more than 6,000 acres are located within Calaveras County, including the most heavily visited portions of the park near SR 4 and the North Grove. The North Grove has been a major tourist attraction ever since its discovery by European Americans in 1852. According to the California Department of Parks and Recreation, the park is the longest continuously-operated tourist facility in California.

The park contains two groves of Sierra Redwood (Sequoiadendron giganteum), one in Calaveras County (the North Grove), and the other in a remote, hiker-accessible portion of Tuolumne County (the South Grove). The tallest tree in the park is over 300 feet high, and some of the older trees are an estimated 3,000 years old. The park contains two campgrounds and numerous trails and recreational facilities.

Reservoir Recreation Areas

Recreational facilities associated with Calaveras County reservoirs form an important part of the county's overall recreational inventory, especially in populous lower-elevation portions of the county that otherwise lack large tracts of easily accessible public land.

- Pardee Reservoir. The East Bay Municipal Utility District (EBMUD) owns and operates Pardee Reservoir, which receives water from the Mokelumne River. EBMUD allows non-contact recreational activities such as fishing, camping, and picnicking in the vicinity of this reservoir, which serves as important source of domestic drinking water.

- Camanche Reservoir. EBMUD owns and operates Camanche Reservoir, and permits contact recreational activities such as swimming and boating in the reservoir. Developed campgrounds and other recreational activities also exist at Camanche. Geographically, Camanche sits downstream of Pardee within the Mokelumne River watershed.

- New Hogan Reservoir. The United States Army Corps of Engineers owns and manages New Hogan Reservoir, which receives water from the Calaveras River. Although less developed than Camanche in terms of overnight facilities and services, New Hogan receives substantial use, including boating, swimming, fishing, picnicking, and camping.

- Tulloch Reservoir. The Tri-Dam Authority owns and operates Lake Tulloch for irrigation and domestic water supply, and permits boating and swimming. Lake Tulloch is a central focal point and community asset for the community of Copperopolis.

- New Melones Reservoir. New Melones Reservoir sits behind the enormous (625 foot) New Melones Dam on the Stanislaus River. The U.S. Bureau of Reclamation owns and operates New Melones Reservoir, which receives substantial boating, fishing, swimming, camping, and other recreational use.

- Salt Springs Reservoir. The Pacific Gas and Electric Company (PG&E) owns and operates Salt Spring Reservoir principally for hydroelectric power purposes. The reservoir sits at a high elevation location within the Stanislaus National Forest along the Mokelumne River. Fishing, boating, swimming, rock climbing, and camping are permitted.

- Salt Spring Valley Reservoir. This reservoir is located at a low-elevation location north of the community of Copperopolis. Fishing, boating, swimming, hunting, and camping are permitted.

- Spicer Reservoir. The Calaveras County Water District owns Spicer Reservoir at a high elevation location on the Stanislaus River system, and provides recreational facilities. The Northern California Power Agency operates the reservoir for power generation.

Local Recreation

Calaveras County does not directly maintain a system of park and recreation facilities. The County owns Murphys Park, located in the town of Murphys, but the Murphys Community Club takes responsibility for park maintenance. Ownership of other publicly accessible recreation facilities in Calaveras County is divided among a wide variety of public agencies, such as school districts, and private foundations/clubs, such as Veterans districts. Generally, Calaveras County does not have much recreation in the form of local parks.

Other Recreational Area

Caves: Several large limestone caves represent a significant and unusual recreational feature in Calaveras County. Among these caves are the following: Mercer Caverns, Moaning Cave, California Caverns. Crystal Palace Cave, which is home to an unusual species of spider, is an additional attraction in the County.

Corridors and Trails: Ebbetts Pass, which is the upper portion of SR 4, has been designed as a State scenic highway. The designation occurs on 24 miles of road within Calaveras County from east of Arnold to the Alpine County line.

The Mokelumne River Coast-to-Crest is proposed to eventually create a multi-use trail across central California from the Pacific Coast to the crest of the Sierra Nevada. The proposed trail would generally follow the Mokelumne Aqueduct and the North Fork of the Mokelumne River.

Historic Ditches: The County is home to numerous ditches built during the Gold Rush era for irrigation and mining purposes. These ditches are provide good walking trails and have the potential to be transformed into trail systems.

Frogtown: The annual Calaveras County Fair and Jumping Frog Jubilee are held at Frogtown each year, as well as other public activities. Camping is also available at the site.

RESPONSES TO CHECKLIST QUESTIONS

Responses a-b): The improvements identified in the RTP include a variety of transportation improvements that will not result in an increased demand, or require the need for expansion of the existing recreational facilities. Furthermore, the improved roadway infrastructure will not require a need for new recreational facilities. Implementation of the proposed project will have a ***less than significant impact*** on recreational facilities.

XVI. TRANSPORTATION/TRAFFIC

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			X	
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?			X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X	
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?		X		
f) Result in inadequate parking capacity?			X	
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			X	

BACKGROUND

Travel in the County

The regional movement of people within the County can be classified into three broad travel categories: commuters, recreational, and visitors. The County commute patterns consist mostly of automobile traffic from the smaller communities and rural areas into the State Routes 49, 26, 4 and 12 corridors. Congestion levels at or near capacity for roads and transit are relatively short and usually occur in the morning and evening peak periods near major intersections. Recreational traffic patterns are dispersed over the day and evening and usually do not adversely affect street or transit capacity except during major events such as the County fair and annual Frog Jump in the City of Angels. The majority of interregional and intra-regional traffic continues to be concentrated in the SR 49 and SR 4 corridors.

Roadway System

Figure 2.1 illustrations the functional classification of major roads in Calaveras County. The following information summarizes the existing road system in Calaveras County:

State Highways: The County is served by four state highways: State Route 4 (SR4) provides an east-west route from San Joaquin County to the high Sierra and Bear Valley ski resort; SR 49 is the major north-south route linking the communities of Mokelumne Hill, San Andreas, and

Angels Camp to Amador and Tuolumne County; SR 26 traverses the northwest corner of Calaveras County between the San Joaquin County line near Rancho Calaveras and the Amador County line near West Point; and SR 12 travels through the western portion of the County and serves as a connector to San Joaquin County, and the communities of Wallace, Burson, Valley Springs, and San Andreas.

Local Streets and Roads: The roadway system in Calaveras County totals approximately 1,059 maintained miles. The entire system employs only 5 traffic signals in the whole County to meter traffic. Stop signs are typically used to control side street approaches to arterials and collectors. The distribution of government responsibility for maintaining the roads is as follows: State Highway 149.4-mi, City Roads-32.2 mi, County Roads-689.6 mi, Federal Roads-128 mi, State Parks Roads-60 mi.

For the 2007 RTP, the Calaveras County Department of Public Works developed a list of improvement projects for "local roads of regional significance." The criteria used for selection required each local roadway to connect major communities, provide parallel capacity for major transportation routes, or serve as emergency relief in case of major system emergencies (e.g., accidents, landslides, fires, flooding, etc.) The list includes:

- Avery Sheep Ranch Road
- Burson Road
- Jenny Lind Road
- Milton Road
- Moran Road
- Mountain Ranch Road
- Murphys Grade Road
- Paloma Road
- Pool Station Road
- Rail Road Flat Road
- Ridge Road
- Sheep Ranch Road

Level of Service

Level of Service (LOS) is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Six LOS options are defined for each type of facility that has analysis procedures available in the *Highway Capacity Manual* (HCM) 2010. Letters designate each LOS from A to F, with LOS A representing the best operating conditions and LOS F the worst. Safety is addressed through other measures.

Public Transportation

Public transportation has always played an important role in Calaveras County. Prior to 1999, demand-responsive transit services were only available in Calaveras County through the Human Resources Council under the name Calaveras Stagecoach. In 1999, the CCOG initiated six deviated fixed-routes in addition to Dial-A-Ride service as Calaveras Transit. The service was provided through a private contractor. In 2004, the County Public Works Department began management of the Calaveras Transit program. The County contracts out to Paratransit Services for daily operations of Calaveras Transit. Per the existing contract which extends through 2015, Paratransit Services is responsible for the day-to-day operation of the transit system and the County is responsible for maintenance, the provision of vehicles, radio equipment, and fuel. Funds for Calaveras Transit are allocated by the CCOG.

Aviation Facilities

The Calaveras County Airport (Maury Rasmussen Field) is a public general aviation airport located four miles southeast of the central business district of San Andreas. The airport is owned by the County of Calaveras. The airport covers an area of 93 acres and contains one

runway (13/31) that is 3,603 feet in length, 60 feet wide, and has two helipads (65 feet by 65 feet). There are 50 single engine, 2 multi-engine, and one ultra-light based aircraft. Annual operations are estimated at 32,000, with 87 daily.

Bike and Pedestrian Facilities

Most bike pedestrian activity in Calaveras County occurs in the developed areas in the western portion of the County or along the SR 4 corridor. As a result most of the County's existing sidewalks and pathways are located in those areas. There is a need for various improvements to these facilities including: ADA access throughout, improved signage, transit shelters/benches, improved pedestrian access to transit, sidewalk/pathway connectivity improvements, maintenance to existing facilities (i.e. surface repairs, obstacle removals, etc.).

The long term vision for bike and pedestrian travel is to make Calaveras County a more accessible rural community, a place where there is a balance between the automobile and alternative modes, where bikeways and walkways are connected to provide a consistent experience within communities.

RESPONSES TO CHECKLIST QUESTIONS

Responses a-b): Implementation of the RTP would support a number of transportation projects throughout the County. None of the Tier 1 projects are newly contemplated projects, rather they are all carried over from the 2007 RTP due to the timing of funds for implementation. Some of the projects involve capacity expansion, while others involve safety enhancements or maintenance. Due to the nature of these projects, transportation- and circulation-related impacts could result from construction activities, as well as from the ongoing operation of the completed facilities. Construction activities would generally result in temporary impacts to the adjacent land uses and the traveling public. The long-term operation of these facilities may have both beneficial and adverse impacts; the new roadway capacity may result in reduced congestion and smoother traffic flows at higher speeds, but it also has the potential to encourage additional traffic in the County, which could result in increased vehicle emissions and other environmental impacts.

Regional LOS Analysis

Table 22 provides a summary of the roadway segments analyzed for State highways and County and City roadways. The PM peak hour LOS for existing conditions is shown. The volumes are peak hour, peak direction. The existing deficiencies (LOS D or greater) occur along 16 segments, which are all presented in bold. All locations are on State facilities. The unacceptable LOS results from limited passing opportunities, narrow lanes and shoulders, and continued growth in volumes of recreational and commercial vehicle traffic. Figure 2.2 provides a map of the location of these facilities.

Table 22: Existing PM Peak Hour Roadway Volumes and LOS

HIGHWAY/ ROADWAY	SEGMENT	OPERATIONAL CLASSIFICATION	PEAK DIRECTION	
			VOLUME	LOS
Pool Station Rd	SR 4 to SR 49	Major Two-Lane Highway	30	C
Gold Strike Rd	Neilsen Rd to SR 49	Minor Two-Lane Highway	137	C
Rail Rd Flat Rd	Sheep Ranch Rd to SR 26	Major Two-Lane Highway	98	C
Mountain Ranch Rd	Gold Hunter to Sheep Ranch Rd	Major Two-Lane Highway	185	C
Mountain Ranch Rd	SR 49 to Gold Hunter	Major Two-Lane Highway	295	C
Ridge Rd	SR 26 to Railroad Flat Rd	Minor Two-Lane Highway	52	C
Main Street - Murphys	Murphys Grade Rd to SR 4	Three-Lane Arterial	148	C
Murphys Grade Rd	Ranch Rd. to SR 4	Three-Lane Arterial	360	C

HIGHWAY/	SEGMENT	OPERATIONAL	PEAK DIRECTION	
Parrotts Ferry Rd	SR 4 to Tuolumne County Line	Major Two-Lane Highway	141	C
Milton Rd	SR 26 to Stanislaus County Line	Major Two-Lane Highway	86	C
Jenny Lind Rd	SR 26 to Milton	Minor Two-Lane Highway	127	C
Paloma Rd	SR 12 to SR 26	Minor Two-Lane Highway	101	C
Avery Sheep Ranch Rd	SR 4 to Sheep Ranch Rd	Minor Two-Lane Highway	123	C
Big Trees Rd	SR4 to Main St. Murphy's	Major Two-Lane Highway	198	C
Burson Rd	SR26 to Camanche Parkway South	Major Two-Lane Highway	42	C
Camanche Parkway South	SR12 to Amador County Line	Major Two-Lane Highway	57	C
Main Street - Copperopolis	SR4 to Reed's Turnpike	Major Two-Lane Highway	177	C
Moran Rd	SR4 to SR4	Major Two-Lane Highway	191	C
O'Byrnes Ferry Rd	Reed's Turnpike to Tuolumne County Line	Major Two-Lane Highway	177	C
Sheep Ranch Rd	Mountain Ranch Rd to Main Street Murphys	Major Two-Lane Highway	141	C
Olive Orchard Rd	SR26 to Burson Rd	Major Two-Lane Highway	104	C
Pettinger Rd	SR12 to Southworth Rd	Major Two-Lane Highway	80	C
Ospital Rd	Southworth Rd to San Joaquin Co. line	Major Two-Lane Highway	30	C
Baldwin Street	SR26 to Milton Rd	Minor Two-Lane Highway	153	C
Felix Rd	Salt Springs Valley Rd to Rock Creek Rd	Minor Two-Lane Highway	10	C
Fricot City Rd	Fourth Crossing Rd to Sheep Ranch Rd	Minor Two-Lane Highway	176	C
Garner Place	SR26 to Baldwin Street	Minor Two-Lane Highway	139	C
Hogan Dam Rd	SR26 to Hunt Rd	Minor Two-Lane Highway	134	C
Independence Rd	Railroad Flat Rd to Ridge Rd	Minor Two-Lane Highway	9	C
Jesus Maria Rd	SR26 to Railroad Flat Rd	Minor Two-Lane Highway	17	C
Pennsylvania Gulch Rd	SR4 to END	Minor Two-Lane Highway	79	C
Rock Creek Rd	Milton Rd to SR4	Minor Two-Lane Highway	3	C
Silver Rapids Rd	Hogan Dam Rd to Heney Lane	Minor Two-Lane Highway	63	C
Vista del Lago	SR26 to Hogan Dam Rd	Minor Two-Lane Highway	186	C
SR 4	SR 4 (W) to Angel Oaks Drive	Three-Lane Arterial	516	C
SR 4	Angel Oakes Drive to Foundry Lane	Three-Lane Arterial	303	C
SR 4	Vallecito Rd to Kurt Drive	Three-Lane Arterial	337	C
SR 4	Stanislaus Co. Line to O'Brynes Ferry Rd	Major Two-Lane Highway	349	C
SR 4	O'Brynes Ferry Rd to SR 49	Major Two-Lane Highway	379	**D**
SR 4	SR 49 to Allen Ln	Major Two-Lane Highway	385	**D**
SR 4	Allen Ln to Broadview Ln (Murphys)	Major Two-Lane Highway	822	**E**
SR 4	Broadview Ln to Lakemont Dr (Murphys to Arnold)	Major Two-Lane Highway	505	**D**
SR 4	Lakemont Dr to Henry Dr (Arnold)	Major Two-Lane Highway	520	**D**
SR 4	Henry Dr to Sierra Pkwy (Arnold to Dorrington)	Major Two-Lane Highway	421	**D**
SR 4	Skyline Dr to Alpine Co. Line (Dorrington to County Line)	Major Two-Lane Highway	181	C
SR 12	San Joaquin Co. Line to Burson Rd	Major Two-Lane Highway	326	C
SR 12	Burson Rd to SR 26	Major Two-Lane Highway	524	**D**
SR 12	SR 26 to SR 49	Major Two-Lane Highway	584	**D**
SR 26	San Joaquin Co. Line to Silver Rapids Rd	Major Two-Lane Highway	409	**D**
SR 26	Silver Rapids Rd to SR 12	Major Two-Lane Highway	657	**D**
SR 26	SR 12 to SR 49	Major Two-Lane Highway	91	C
SR 26	SR 49 to Ridge Rd	Major Two-Lane Highway	74	C
SR 26	Ridge Rd to Winton Rd	Major Two-Lane Highway	151	C
SR 26	Winton Rd to Amador Co. Line	Major Two-Lane Highway	125	C
SR 49	Copello Drive to Dogtown Rd	Three-Lane Arterial	358	C
SR 49	Dogtown Rd to SR 4 (W)	Three-Lane Arterial	570	C
SR 49	SR 4 (W) to Murphys Grade Rd	Three-Lane Arterial	664	**D**
SR 49	Murphy's Grade Rd to Stanislaus Avenue	Three-Lane Arterial	487	C

HIGHWAY/	SEGMENT	OPERATIONAL	PEAK DIRECTION	
SR 49	Stanislaus Avenue to Mark Twain Rd	Three-Lane Arterial	787	**D**
SR 49	Mark Twain Rd to Bret Harte Rd	Three-Lane Arterial	666	**D**
SR 49	Bret Harte Rd to Vallecito Rd	Three-Lane Arterial	616	C
SR 49	Centennial Rd to SR 4	Three-Lane Arterial	545	C
SR 49	Amador Co. Line to SR 12	Major Two-Lane Highway	243	C
SR 49	SR 12 to Mountain Ranch Rd (San Andreas)	Three-Lane Arterial	522	C
SR 49	Mountain Ranch Rd to 4th Crossing Rd	Major Two-Lane Highway	354	**D**
SR 49	4th Crossing Rd to Brunner Hill Rd	Major Two-Lane Highway	382	**D**
SR 49	Brunner Hill Rd to SR 4 South (Angels Camp)	Three-Lane Arterial	733	**D**
SR 49	SR 4 South to Tuolumne Co. Line	Major Two-Lane Highway	322	C

SOURCE: CALAVERAS COUNTY; CITY OF ANGELS; FEHR & PEERS 2012

Table 23 shows the projected 2035 traffic volumes on State highways and major County roadways. The future (2035) conditions of roadways forecast to have LOS D or worse are highlighted in bold font. The list includes six local facilities (County/City roadways) that moved from acceptable LOS in the existing to the unacceptable category based on the capacity thresholds. In addition, eleven new segments on state facilities were forecast to be at LOS D or worse through 2035. Figure 2.3 provides a map of the location of these facilities.

Table 23: Future Cumulative PM Peak Hour Roadway Volumes

HIGHWAY/ ROADWAY	SEGMENT	OPERATIONAL CLASSIFICATION	PEAK DIRECTION	
			VOLUME	LOS
Pool Station Rd	SR 4 to SR 49	Major Two-Lane Highway	150	C
Gold Strike Rd	Neilsen Rd to SR 49	Minor Two-Lane Highway	170	C
Rail Rd Flat Rd	Sheep Ranch Rd to SR 26	Major Two-Lane Highway	140	C
Mountain Ranch Rd	Gold Hunter to Sheep Ranch Rd	Major Two-Lane Highway	210	C
Mountain Ranch Rd	SR 49 to Gold Hunter	Major Two-Lane Highway	360	**D**
Ridge Rd	SR 26 to Railroad Flat Rd	Minor Two-Lane Highway	70	C
Main Street - Murphys	Murphys Grade Rd to SR 4	Three-Lane Arterial	530	C
Murphy's Grade Rd	Ranch Rd to SR 4	Three-Lane Arterial	590	C
Parrotts Ferry Rd	SR 4 to Tuolumne County Line	Major Two-Lane Highway	250	C
Milton Rd	SR 26 to Stanislaus County Line	Major Two-Lane Highway	150	C
Jenny Lind Rd	SR 26 to Milton	Minor Two-Lane Highway	330	**D**
Paloma Rd	SR 12 to SR 26	Minor Two-Lane Highway	130	C
Avery Sheep Ranch Rd	SR 4 to Sheep Ranch Rd	Minor Two-Lane Highway	170	C
Big Trees Rd	SR4 to Main St. Murphys	Major Two-Lane Highway	640	**D**
Burson Rd	SR26 to Camanche Parkway South	Major Two-Lane Highway	150	C
Camanche Parkway South	SR12 to Amador County Line	Major Two-Lane Highway	70	C
Main Street - Copperopolis	SR4 to Reed's Turnpike	Major Two-Lane Highway	280	C
Moran Rd	SR4 to SR4	Major Two-Lane Highway	260	C
O'Byrnes Ferry Rd	Reed's Turnpike to Tuolumne County Line	Major Two-Lane Highway	380	**D**
Sheep Ranch Rd	Mountain Ranch Rd to Main Street Murphys	Major Two-Lane Highway	160	C
Olive Orchard Rd	SR26 to Burson Rd	Major Two-Lane Highway	350	C
Pettinger Rd	SR12 to Southworth Rd	Major Two-Lane Highway	250	C
Ospital Rd	Southworth Rd to San Joaquin Co. line	Major Two-Lane Highway	50	C
Baldwin Street	SR26 to Milton Rd	Minor Two-Lane Highway	300	**D**
Felix Rd	Salt Springs Valley Rd to Rock Creek Rd	Minor Two-Lane Highway	20	C
Fricot City Rd	Fourth Crossing Rd to Sheep Ranch Rd	Minor Two-Lane Highway	180	C
Garner Place	SR26 to Baldwin Street	Minor Two-Lane Highway	430	**D**
Hogan Dam Rd	SR26 to Hunt Rd	Minor Two-Lane Highway	140	C

HIGHWAY/ ROADWAY	SEGMENT	OPERATIONAL CLASSIFICATION	PEAK DIRECTION	
			VOLUME	LOS
Independence Rd	Railroad Flat Rd to Ridge Rd	Minor Two-Lane Highway	20	C
Jesus Maria Rd	SR26 to Railroad Flat Rd	Minor Two-Lane Highway	30	C
Pennsylvania Gulch Rd	SR4 to END	Minor Two-Lane Highway	80	C
Rock Creek Rd	Milton Rd to SR4	Minor Two-Lane Highway	60	C
Silver Rapids Rd	Hogan Dam Rd to Heney Lane	Minor Two-Lane Highway	120	C
Vista del Lago	SR26 to Hogan Dam Rd	Minor Two-Lane Highway	200	C
SR 4	SR 4 (W) to Angel Oaks Drive	Three-Lane Arterial	660	**D**
SR 4	Angel Oakes Drive to Foundry Lane	Three-Lane Arterial	370	C
SR 4	Vallecito Rd to Kurt Drive	Three-Lane Arterial	520	C
SR 4	Stanislaus Co. Line to O'Brynes Ferry Rd	Major Two-Lane Highway	720	**D**
SR 4	O'Brynes Ferry Rd to SR 49	Major Two-Lane Highway	430	**D**
SR 4	SR 49 to Allen Ln	Major Two-Lane Highway	670	**D**
SR 4	Allen Ln to Broadview Ln (Murphys)	Major Two-Lane Highway	1,280	**E**
SR 4	Broadview Ln to Lakemont Dr (Murphys to Arnold)	Major Two-Lane Highway	840	**E**
SR 4	Lakemont Dr to Henry Dr (Arnold)	Major Two-Lane Highway	670	**D**
SR 4	Henry Dr to Sierra Pkwy (Arnold to Dorrington)	Major Two-Lane Highway	510	**D**
SR 4	Skyline Dr to Alpine Co. Line (Dorrington to CL)	Major Two-Lane Highway	210	C
SR 12	San Joaquin Co. Line to Burson Rd	Major Two-Lane Highway	580	**D**
SR 12	Burson Rd to SR 26	Major Two-Lane Highway	690	**D**
SR 12	SR 26 to SR 49	Major Two-Lane Highway	800	**E**
SR 26	San Joaquin Co. Line to Silver Rapids Rd	Major Two-Lane Highway	640	**D**
SR 26	Silver Rapids Rd to SR 12	Major Two-Lane Highway	860	**E**
SR 26	SR 12 to SR 49	Major Two-Lane Highway	110	C
SR 26	SR 49 to Ridge Rd	Major Two-Lane Highway	150	C
SR 26	Ridge Rd to Winton Rd	Major Two-Lane Highway	250	C
SR 26	Winton Rd to Amador Co. Line	Major Two-Lane Highway	260	C
SR 49	Copello Drive to Dogtown Rd	Three-Lane Arterial	620	C
SR 49	Dogtown Rd to SR 4 (W)	Three-Lane Arterial	750	**D**
SR 49	SR 4 (W) to Murphys Grade Rd	Three-Lane Arterial	680	**D**
SR 49	Murphy's Grade Rd to Stanislaus Avenue	Three-Lane Arterial	630	C
SR 49	Stanislaus Avenue to Mark Twain Rd	Three-Lane Arterial	870	**D**
SR 49	Mark Twain Rd to Bret Harte Rd	Three-Lane Arterial	690	**D**
SR 49	Bret Harte Rd to Vallecito Rd	Three-Lane Arterial	690	**D**
SR 49	Centennial Rd to SR 4	Three-Lane Arterial	860	**D**
SR 49	Amador Co. Line to SR 12	Major Two-Lane Highway	490	**D**
SR 49	SR 12 to Mountain Ranch Rd (San Andreas)	Three-Lane Arterial	570	**C**
SR 49	Mountain Ranch Rd to 4th Crossing Rd	Major Two-Lane Highway	720	**D**
SR 49	4th Crossing Rd to Brunner Hill Rd	Major Two-Lane Highway	720	**D**
SR 49	Brunner Hill Rd to SR 4 South (Angels Camp)	Three-Lane Arterial	800	**D**
SR 49	SR 4 South to Tuolumne Co. Line	Major Two-Lane Highway	610	**D**

SOURCE: FEHR & PEERS 2012

Future traffic conditions are forecasted to worsen largely due to the projected increase in development. Forecasted growth in the County will result in increased vehicle miles traveled and daily trips regardless of the proposed project. The RTP has been developed to support planned and proposed growth in the region, but does not involve approvals of development projects.

The RTP includes funding and other strategies that are aimed at improving transportation conditions, including level of service on roadways. These are beneficial impacts to the

transportation system in Calaveras County; however, there will be funding shortfalls due to funding constraints. It will not be possible to fund all transportation improvements that are needed in the region through the RTP. Ultimately it will be the responsibility for local land use agencies to collect development fees to fund projects that are needed, but not able to be funded through the RTP. The collection of development fees by local agencies to finance needed improvements would ensure that levels of service are maintained in their jurisdiction. The capacity improvements proposed by Caltrans for State Highways, as reflected in the Transportation Concept Reports, will help keep these facilities at an acceptable LOS.

Implementation of the proposed project would not result in population growth within Calaveras County, and would not directly result in decreases in LOS on area roadways. The proposed project would improve traffic flows and operations throughout the County, and would not directly result in an LOS that exceeds applicable standards or thresholds. Implementation of the proposed project would have a ***less than significant*** impact relative to this issue.

Responses c): The RTP includes aviation projects that are intended to maintain existing operations and safety at the public aviation facilities in the County. These projects would not result in a change in air traffic patterns; rather, implementation of the RTP is intended to safely accommodate anticipated air traffic. Implementation of the proposed project would have a ***less than significant*** impact on air safety.

Responses d): The RTP includes roadway projects designed to alleviate existing and anticipated future congestion issues and to reduce traffic hazards. While the RTP includes numerous projects that will involve a design/engineering process, the project-specific designs and plans for these improvements are not available for analysis at this time. However, consistent with agency practice, all improvements will be designed to the standards and specifications of Caltrans or the appropriate implementing agency. As such, the proposed project is not anticipated to cause a substantial increase in hazards due to design features or incompatible uses. Therefore, the potential impacts on safety and compatibility are considered ***less than significant***.

Responses e): The RTP does not propose any specific projects that are believed to result in inadequate emergency access. In some cases, the RTP would provide increased regional connectivity and should improve movement of emergency vehicles. However, emergency access could potentially be affected during construction activities associated with implementation of the various improvement projects identified in the RTP. The implementing agency for each improvement project would be responsible for coordinating with the emergency providers to ensure that emergency routes remain available during construction activities. The following mitigation measure would require the implementing agency to prepare a traffic control plan for construction and to coordinate with emergency service providers to ensure that emergency routes are identified and remain available during construction activities. Implementation of the following mitigation measure would ensure that this impact is ***less-than-significant***.

Mitigation Measure 32: *The implementing agencies shall to develop a traffic control plan for construction projects to reduce the effects of construction on the roadway system throughout the construction period. As part of the traffic control plan, project proponents shall coordinate with emergency service providers to ensure that emergency routes are identified and remain available during construction activities.*

Responses f): The RTP would not generate a need for additional parking. Therefore, the potential impacts on parking are considered ***less than significant***.

Responses g): The long term vision for transit and non-motorized travel is to make Calaveras County a more accessible rural community, a place where there is a balance between the automobile and alternative modes, where walkways/bikeways are connected to provide a consistent experience within communities. Most pedestrian activity in Calaveras County occurs in the developed areas in the western section of the County or along the SR 4 corridor. As a result most of the County's existing sidewalks and pathways are located in those areas. In addition to these areas the needs assessment considers rural roads.

Transit: The RTP has programmed $13,370,000 in Tier 1 transit improvements including: an extensive transit bench and shelters program, vehicle replacement, and operations and maintenances. Additionally, The RTP has programmed $20,425,000 in Tier 2 transit improvements including: vehicle replacement, and operations and maintenances. The total programmed transit dollars are $33,795,000 over the planning horizon. The expected revenues would provide a shortfall of just under $25,000.

Non-motorized: The RTP has programmed $11,717,000 in Class I/II improvements, $25,205,000 in Class III improvements, $657,000 programmed for non-motorized signage, and $1,722,000 in pedestrian facilities over the planning horizon. The expected revenues would provide a shortfall of just under $32,724,000.

The RTP includes transit and non-motorized transportation projects for the region, including bicycle/pedestrian projects that carry out goals of the RTP. In addition to these programmed projects, it will be the responsibility of the land use agencies to appropriately plan for non-motorized facilities within their respective communities. Implementation of the RTP would have a ***less than significant*** impact relative to this issue.

XVII. UTILITIES AND SERVICE SYSTEMS

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?		X		
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X

BACKGROUND DISCUSSION

Wastewater Treatment

There are seven public agencies within the County that provide wastewater services to the populated areas of the county: Calaveras County Water District (CCWD), Murphys Sanitary District (MSD), San Andreas Sanitary District (SASD), Mokelumne Hill Sanitary District (MHSD), Valley Spring Public Utility District (VSPUD), Wallace Community Services District (WCSD), and the City of Angels Camp.

Existing wastewater systems in the county generally are in need of improvement to current standards and some may not be capable of meeting existing service demands. Several areas of the county have limited capacity to meet the wastewater needs of future growth. In particular, there is a moratorium on new development in the San Andreas Sanitary District and Calaveras County Water District (Forest Meadows and Vallecito/Douglas Flat wastewater service areas).

Water Supply

The County's water supply needs are provided through five major water purveyors, two of which obtain water supplies from groundwater (Wallace Community Services District and Valley Springs Public Utility District) and three obtain water supplies from surface water (Calaveras County Water District, Calaveras Public Utility District, and Union Public Utility District). Currently, there are adequate supplies of water to meet the needs of existing and near future domestic water needs. Distribution infrastructure will be needed to serve future needs.

Storm Drainage

The stormwater drainage systems serving most areas of unincorporated Calaveras County consist of overland flow to natural drainage ways or to unlined open ditches and channels alongside public and private roads. Culverts are typically provided to route stormwater under driveway encroachments and roadways. Generally speaking, unlike more urbanized areas, there are few discrete stormwater outlets in Calaveras that discharge collected stormwater from large geographic areas. Instead, most stormwater runoff from within the county sheet flows into roadside drainage ditches that discharge collected stormwater to various natural swales, creeks, rivers, and intermittent and perennial streams as determined by local topography.

Stormwater inlets are located along some county roads and State highways as well as in some parking lots and other large, public and private paved areas. These inlets typically convey localized drainage to adjacent open channel drainages and are not interconnected as part of a more extensive stormwater collection network. There are curbs and gutters in some of the County's newer residential developments and in some community town centers. Collected gutter flow either discharges into natural drainage swales, into roadside ditches, or into stormwater inlets. Stormwater flowing into inlets or catch basins is typically discharged through culverts to adjacent natural or man-made surface drainage channels.

The community areas within Calaveras County that have been designated as "regulated small MS4s" by the Central Valley Regional Water Quality Control Board (CVRWQCB) include: Arnold, Murphys, San Andreas, Valley Springs/Burson, Rancho Calaveras, and Copperopolis. Unincorporated areas of the county outside of the discharge permit areas identified above are not currently subject to regulation by the CVRWQCB as part of the Calaveras County MS4 Stormwater Discharge Permit. However, Calaveras County has proposed that these areas be subject to many of the stormwater quality control measures that will be implemented within designated Stormwater Discharge Permit areas.

Solid Waste

The Rock Creek Solid Waste Facility encompasses an active Class II landfill, a transfer station, several recycling programs, and a household hazardous waste facility. Rock Creek accepts garbage, recyclable toxics, household hazardous waste, conditionally-exempt small-quantity generator/business hazardous waste, and several categories of recyclables including: appliances, cardboard, concrete and rubble, mixed construction and demolition waste, mixed recyclables (containers and paper), sheetrock, stumps, tires, and wood and yard waste. Rock Creek is open daily from 8:00 to 4:40 p.m. and accepts waste only from Calaveras and Alpine County sources. The Calaveras County Public Works Department estimates there is in excess of 30 years of capacity remaining. Solid waste and recycling is not considered a constraint in Calaveras County.

RESPONSES TO CHECKLIST QUESTIONS

Responses a-b), d-g): The County has an elaborate network of public utilities and services, such as water, wastewater, and solid waste collection and disposal. It has been a goal of the County and City of Angels Camp to maintain an adequate level of services for all public utilities and services provided to the community. Utility infrastructure exists in various parts of the incorporated and unincorporated county. The proposed project does not require the use of these utilities or infrastructure and would not result in the expansion of utilities or infrastructure. Implementation of the proposed project will have a ***less than significant*** impact.

Response c): Each individual improvement project would result in additional impervious services and increased stormwater runoff. Mitigation measures presented in Section IX Hydrology and Water Quality provide various requirements relative to storm drainage. These include the preparation of a drainage study for each individual improvement. The results of the drainage study would then allow for proper engineering and construction of storm drainage infrastructure (i.e. culverts, pipes, detention/retention ponds, biofilters, etc.) to control runoff and prevent flooding, erosion, and sedimentation. Each improvement would require a Storm Water Pollution Prevention Plan that would be submitted to the Regional Water Quality Control Board for review and approval prior to issuance of a General Permit for storm water discharge. The RTP does not provide detailed engineering and drainage plans for any of the potential improvements because they will be completed at a project specific level at a later date once they are funded and up for approval. The RTP would have a ***less than significant*** impact on storm drainage.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		X		
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

RESPONSES TO CHECKLIST QUESTIONS

Responses a-c): As described throughout the analysis above, the proposed project will not result in any changes to General Plan land use designations or zoning districts, would not result in annexation of land, and would not allow development in areas that are not already planned for development in the General Plan and Zoning Ordinance. The proposed project would not result in new adverse environmental impacts. The project would not threaten a significant biological resource, nor would it eliminate important examples California history or prehistory. The proposed project does not have impacts that are cumulatively considerable, nor would it have substantial adverse effects on human beings. Several mitigation measures are presented throughout this document. With the implementation of these mitigation measures, the proposed project would have a ***less than significant*** impact on these environmental topics.

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GLOSSARY OF RTP TERMS

ADA
Americans with Disabilities Act

ADT
Average Daily Traffic:

Air Cargo
Revenue producing items in domestic or international commerce, composed of freight, express, and mail, but excluding passenger baggage.

Air Carrier
An aviation operator who provides regular round-trips per week between two or more points and publishes flight schedules that specify the times, days of the week, and places between which such flights are performed.

Alternative Fuels
Low-polluting fuels that are used to propel a vehicle instead of high-sulfur diesel or gasoline. Examples include methanol, ethanol, propane, compressed natural gas, liquid natural gas, low-sulfur or "clean" diesel, and electricity.

Amtrak
A federal governmental agency that provides intercity railroad passenger service Amtrak also provides commuter rail passenger service by contract.

Annual Service Miles
The number of miles that all transit vehicles travel each year in scheduled transit service operations, or when carrying passengers in door-to-door (or demandresponsive) transit service.

ArcInfo
A geographic information system (GIS) which can be used to maintain, manipulate, and display transportation, land use, and demographic data.

AVL
Automated Vehicle Location. A transportation device that uses the coordinates from earth-orbit satellites to determine the precise location of a vehicle on the earth's surface.

Bikeway Classifications
As defined by the Caltrans Highway Design Manual:
Class I Bike Path: A paved path within an exclusive right-of-way.
Class II Bike Lane: Signed and striped lanes within a street right-of-way.
Class III Bike Route: Preferred routes on existing streets identified by signs only.

CAAA
Clean Air Act Amendments of 1990. Federal legislation which establishes criteria for attaining and maintaining the federal air quality standards for allowable concentrations and exposure limits for

various air pollutants. The legislation also provides emission standards for specific vehicles and fuels.

Caltrans
California Department of Transportation:

CARB
California Air Resources Board:

Carpool
Two or more people sharing the use and cost of privately owned automobiles.

CCAA
California Clean Air Act passed in 1988 that provides the basis for air quality planning and regulation independent of federal regulations.

CCI
Construction Cost Index measures the inflation rate in the cost of major construction projects.

CCOG
Calaveras Council of Governments

CHP
California Highway Patrol:
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CMAQ
Congestion Mitigation and Air Quality Program. A category of funds contained in TEA-21 for projects and activities that reduce congestion and improve air quality in regions not yet attaining federal air quality standards.

Community Plan
More specific versions of the General Plans, generally dealing with smaller geographical areas, but having the same force of law. See General Plan.

Conformity
A demonstration of whether a federally-supported activity is consistent with the State Implementation Plan (SIP) — per Section 176 (c) of the Clean Air Act.

Congestion
Congestion is usually defined as travel time or delay in excess of that normally experienced under free-flow traffic conditions.

Corridor
A broad geographical band that follows a general directional flow connecting major trip origins and destinations. A corridor may contain a number of streets, highways and transit route alignments.

CPI
Consumer Price Index developed by the Bureau of Labor Statistics of the U.S. Department of Labor to provide a measurement of the inflation rate in the general economy of a given metropolitan area.

CTC
California Transportation Commission:

CVO
Commercial Vehicle Operations

Deficient Segment
As used in the RTP, a portion of freeway experiencing LOS F where demand exceeds capacity.

Demand- Responsive Service
Transit service that is provided in response to a pre-ordered or telephone reservation.

Development Impact Fee
A fee charged to private developers, usually on a per-dwelling unit or per square foot basis, to help pay for infrastructure improvements necessitated as a result of the development.

DOT
Department of Transportation:

EIR
Environmental Impact Report. A detailed statement prepared under the California Environmental Quality Act (CEQA) describing and analyzing the significant environmental effects of a project and discussing ways to mitigate or avoid the effects.
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EMP
Environmental Mitigation Program. Provides funding for the mitigation of local and regional transportation projects and additional funding for activities that help implement the region's habitat preservation plans

Environmental Justice
The fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws and policies.

Expressway
Similar to a freeway but with some signal-controlled intersections.

FAA
Federal Aviation Administration:

Farebox Recovery Ratio
Measure of the proportion of operating expenses covered by passenger fares. The ratio divides the farebox revenue by the total operating expenses.

Farebox Revenue
Value of cash, tickets, and pass receipts given by passengers for payment for rides on public transit.

Fare Structure
The various fees charged to use transit typically delineated by age, type of service, trip length and/or time of day.

FHWA
Federal Highway Administration:

Fixed-Route Service
Service provided on a regular, fixed-schedule basis along a specific route with vehicles stopping to pick up and deliver passengers to specific locations.

Freeway
Multilane divided roadway, grade separated from other roadways, with fully controled access and egress.

FTA
Federal Transit Administration:

Gas Tax
The tax applied on each gallon of fuel sold. Currently, the federal tax is18.3 cents per gallon and the state tax is 18 cents per gallon tax.

General Plan
A policy document required of cities and counties by state law which describes a jurisdiction's future development in text and map form. All land use decisions must derive from the GP. The General Plan must contain seven mandatory elements: Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety.

GHG Emissions
Gases that effect global climate change. They include: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

GIS
Geographic Information System.

Grade Separation
A vertical separation between intersecting roads and or railway tracks.

GRH
Guaranteed Ride Home Program which provides a free taxicab ride or 24-hour car rental to those whocarpool, vanpool, use premium bus service or bike to work

HCM
Highway Capacity Manual:

Heavy Rail
Railroad services that operate in a mixed-user environment on conventional railroad tracks.

Household
All people living in a housing unit, regardless of whether they are related to each other. Housing units include houses, apartments, and mobile homes.

HOV
High Occupancy Vehicle that carries more than one passenger. Examples include carpools,vanpools, shuttles, and buses.

HOV Lane
Exclusive road or traffic lane limited to HOVs that typically has a higher operating speed and lower traffic volumes than a general purpose or mixed flow lane.

Inter-city Rail
Railroad passenger service which primarily serves longer trips such as those between major cities or regions.

Intermodal
Passenger or freight transportation services which involve or use more than one type of transportation facility (or mode).

ITS
Intelligent Transportation Systems use transportation technologies, management tools, and electronic services to improve operational efficiencies.

JARC
Jobs Access Reverse Commute. The SAFETEA-LU formula fund program which provides support for capital or operating costs for transportation services and facilities designed to facilitate reverse commute employment related travel for persons of limited means.

LOS
Level of Service. A qualitative measure describing operational conditions within a traffic stream and motorists' perception of those conditions. LOS ratings typically range from LOS A, which represents free flow conditions, to LOS F, which is characterized by forced flow, heavy congestion, stop and go traffic, and long queues.

Mixed-Use
The combining of commercial, office, and residential land uses to provide easy pedestrian access and reduce the public's dependence on the automobile.

Mode
One of various forms of transportation, including automobile, transit, bicycle, and walking.

MCAB
Calaveras County is located within the Mountain Counties Air Basin (MCAB), which includes Nevada, Sierra, Plumas, Amador, Calaveras, Tuolumne, Mariposa counties and a portion of El Dorado and Placer County. California air basin boundary designations generally cover areas that share similar meteorological and geographic conditions. The MCAB includes both the western and eastern slopes of the Sierra Nevada Mountains including much of the Sierra foothills. The area covered is approximately 11,000 square miles.

MIS
Major Investment Study. A feasibility study and resulting document which is required for major surface transportation projects involving significant federal funds.

Mode Split
The percent of trips that use each of the various travel modes.

MPO
Metropolitan Planning Organization is the federally-designated agency that is responsible for regional transportation planning in each metropolitan area.

Non-attainment Area
A geographic area identified by the U.S. EPA and/or the California Air Resources Board (CARB) as not meeting either the national or California Ambient Air Quality Standards for a given pollutant.

Paratransit
The range of demand-responsive (or on-request) transit providing service from a trip origin to trip destination.

Park and Ride
A travel option where commuters park their personal vehicles in a publicly provided lot or other location, and continue their trip via carpool, vanpool, or transit.

Park and Ride Lot
Facilities where individuals can rendezvous to utilize carpools, vanpools, and transit for group travel to their destinations.

Performance Measures
Objective, quantifiable criteria used to evaluate the performance of the transportation system and to determine how well planned improvements to the system are achieving the established objectives.

PSR
Project Study Report. A preliminary engineering report which documents agreement on the scope, a set of reasonable and feasible alternatives, schedule, and estimated cost of a project so that the project can be included in a future State Transportation Improvement Program (STIP).

Public Transportation
Travel by bus, rail, or other vehicle, either publicly or privately owned, which provides general or specialized service on a regular or continuing basis.

Reverse Commute
Travel in the direction opposite to the main flow of peak period commute traffic.

ROW
Right-of-Way. The land required for the construction and operation of a transportation facility.

RTIP
Regional Transportation Improvement Program (RTIP). A listing of major highway and transit projects including project costs, funding sources, and development schedules.

RTP
Regional Transportation Plan. A minimum 20-year plan that is required by state and federal law to guide the development of the region's transportation system.

RTPA
Regional Transportation Planning Agency. A state-designated agency responsible for preparing the RTP and the RTIP and administering state transportation funds. The Calaveras Council of Governments is the RTPA for Calaveras County.

Safe Routes to School
A state and federal program which funds education, encouragement campaigns, and infrastructure improvements to help reduce the amount of traffic congestion around schools.

SAFETEA-LU
Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. Federal legislation signed into law on August 10, 2005 authorizing $244.1 billion for Federal surface transportation programs for highways, highway safety, and transit for the 5-year period 2005-2009.

SIP
State Implementation Plan. A document that shows the steps planned to meet federal air quality standards.

SHOPP
State Highway Operation and Protection Program. Caltrans' three-year program to address traffic safety, roadway rehabilitation, roadside rehabilitation, or operations needs on the state highway system.

Smart Growth
A compact, efficient, and environmentally-sensitive pattern of development that provides people with additional travel, housing, and employment choices by focusing future growth away from rural areas and closer to existing and planned job centers and public facilities, while preserving open space and natural resources.

SOV
Single occupant vehicle

STIP
State Transportation Improvement Program. A multi-year program of major transportation projects to be funded by the state. The CTC adopts the STIP every two years based on projects proposed in RTIPs and

from Caltrans.

STP
Surface Transportation Program. A federal program originally established in the federal ISTEA legislation which provides flexible funding allocated by regional agencies like CCOG for a range of projects including highways, transit, local streets and roads, and bicycles.

TCM
Transportation Control Measure. A transportation strategy intended both to reduce vehicle miles traveled (VMT) and to make VMT more efficient. TCMs include transportation system management (TSM) and transportation demand management (TDM) elements. Examples include carpooling, transit, and computer-optimized traffic signals.

TDA
Transportation Development Act. TDA funds are generated from a tax of one-quarter of one percent on all retail sales in each county and are used for transit, specialized transit for disabled persons, and bicycle and pedestrian purposes.

TCRP
Transportation Congestion Relief Program

TDM
Transportation Demand Management. Programs to reduce demand by automobiles on the transportation system, such as telecommuting, flextime, bicycling, walking, transit use, staggered work hours, and ridesharing.

TSM
Transportation System Management. Strategies that maximize the number of persons traveling in a corridor or facility. These strategies include traffic flow improvements, ramp metering, and park-and-ride lots.

U.S. DOT
United States Department of Transportation:

U.S. EPA
U.S. Environmental Protection Agency:

Vanpool
A vehicle operating as a ridesharing arrangement, providing transportation to a group of individuals traveling directly between their homes and a regular destination within the same geographic area.

V/C Ratio
Volume to Capacity Ratio. The volume of traffic divided by the capacity of a transportation facility.

VMT
Vehicle Miles Traveled. The total number of miles traveled on all roadways by all vehicles.