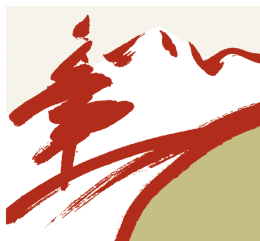




2017 CALAVERAS
REGIONAL TRANSPORTATION PLAN

10.04.17



CALAVERAS COUNCIL
of GOVERNMENTS

2017 CALAVERAS

REGIONAL TRANSPORTATION PLAN

REPORT PREPARED FOR



CALAVERAS COUNCIL
of GOVERNMENTS

REPORT PREPARED BY



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1 INTRODUCTION

1.1 About the Calaveras Council of Governments

The Calaveras Council of Governments (CCOG) was established in 1998 as the Regional Transportation Planning Agency (RTPA) representing the County of Calaveras and the City of Angels under a Joint Powers Agreement. The CCOG is based in San Andreas, the Calaveras County seat, and is comprised of seven members – two County supervisors, two council members from the City of Angels, and three members selected from the general public. Calaveras County is within the jurisdictional boundaries of the California Department of Transportation (Caltrans) District 10, with offices in Stockton. The CCOG, along with Caltrans District 10, fulfills the transportation planning responsibilities for Calaveras County.

1.2 ABOUT THE REGIONAL TRANSPORTATION PLAN

One of the major planning responsibilities of the CCOG is the development of the Regional Transportation Plan (RTP). The RTP serves as the planning blueprint to guide transportation investments in Calaveras County involving local, state and federal funding over the next twenty years. Transportation improvements in the RTP are identified as short-range/constrained (2017-2027) and long-range/unconstrained (2028-2037). The RTP must be updated every four (4) years; the last RTP update was adopted in 2012.

Since the mid-1970s, with the passage of AB 69 (Chapter 1253, Statutes of 1972), California state law has required the preparation of RTPs to address transportation issues and assist local and state decision-makers in shaping California’s transportation infrastructure. State and federal statutes require that RTPs serve as the foundation of the Federal State Transportation Improvement Program (FSTIP, which includes the State Transportation Improvement Program or STIP). The FSTIP is prepared by Caltrans in coordination with Metropolitan Planning Organizations (MPO) and Regional Transportation Planning Agencies (RTPA) and identifies the next four years of transportation projects to be funded for construction. The California Transportation Commission (CTC) cannot program projects that are not identified in the RTP.

The overall focus of the 2017 RTP is directed at developing a coordinated and balanced multi-modal regional transportation system that is financially constrained to the revenues anticipated over the life of the plan. The coordination focus brings the County, Caltrans, the City of Angels, government resource agencies, commercial and agricultural interests, California Valley Miwok Tribe and citizens into the planning process. The balance is achieved by considering investment and improvements for moving people and goods across all types of transportation including automobiles, public transit, bicycle, pedestrian, trucking, railroad, and aviation.

1.3 CONSISTENCY WITH 2017 REGIONAL TRANSPORTATION PLAN (RTP) GUIDELINES

The California Transportation Commission (CTC) develops RTP Guidelines to provide guidance so that RTPAs will develop their RTPs to be consistent with federal and state transportation planning requirements. For the first time, two separate guidelines were adopted in January 2017 to guide RTP development in Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Agencies (RTPAs). Both documents incorporate new legislation and the associated goals, particularly related to reducing Greenhouse Gas (GHG) emissions and improving air quality.

1.3.1 Planning Legislation

The Regional Transportation Plan must be consistent with the State’s Transportation Plan and therefore much of the statewide legislation regarding regional planning focuses on the California Transportation Plan (CTP). In order to reach statewide greenhouse gas (GHG) emissions reduction goals set by the California Global Warming Solutions Act of 2006 and implementing legislation SB 375, the CTP considers the following areas for the movement of people and freight:

- Mobility and accessibility.
- Integration and connectivity.
- Efficient system management/operation.
- Existing system management and operation.
- Existing system preservation.
- Safety and security.
- Economic development.
- Environmental protection and quality of life.

In 2013, the connection between land use planning, transportation infrastructure investment, and greenhouse gasses was strengthened by SB 743. SB 743 directed the Office of Planning and Research (OPR) to amend the California Environmental Quality Act (CEQA) Guidelines to provide an alternative to Level of Service (LOS) for evaluating transportation impacts. Particularly within areas served by transit, those alternative criteria must “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” (New Public Resources Code Section 21099(b)(1)). In January of 2016 OPR released draft CEQA Guidelines and a Technical Advisory that changes the primary metric of transportation impacts from LOS to Vehicle Miles Traveled (VMT). Using the VMT metric promotes the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. Per the California Air Resources Board Vision Model results, reductions in VMT growth are needed to achieve sufficient greenhouse gas emissions reduction for climate stabilization.

In 2015, Governor Brown issued Executive Order B-30-15 establishing a California GHG reduction target of 40 percent below 1990 levels by 2050. Modeling undertaken by the California Air Resources Board (ARB) shows that Vehicle Miles Traveled (VMT) will have to be kept to a 5.5 percent increase through 2030 in order to satisfy the executive order.

Executive Order B-32-15 issued by Governor Brown in July 2015, prioritizes California’s transition to a more efficient and less polluting freight transportation system. The California Freight Mobility Plan (CFMP) and the California Sustainable Freight Action Plan (CSFAP) direct State agencies to develop an integrated action plan by July 2016 that established clear targets to improve freight efficiency, transition to zero-emission technologies, and increase the competitiveness of California’s freight system.

1.3.2 Promoting Health

The 2017 RTP guidelines have placed a new emphasis on promoting health for California residents through the promotion of transportation planning and policies that increase physical activity and improve air quality. RTPs often incorporate many or all of the following health-promoting programs and planning strategies: safe routes to school programs; complete streets strategies; equity considerations; transportation safety; and policies to promote transit, bicycling and walking. Air quality and safety are very important to public

health; however transportation can also encourage physical activity, such as walking and biking. Access to jobs, education, healthy food, recreation, worship, community activities, healthcare, and more also increase health benefits; as nations, states and regions shift away from fossil fuel dependent transportation modes, the benefits of reducing the effects of climate change will also help to reduce the public health risks from climate change effects such as extreme heat, storms, and drought.

1.4 Purpose of the Plan

The purpose of the RTP is to provide a vision for the region, supported by short- and long-range transportation goals. RTPs must include the following three elements:

- **The Policy Element** (Chapter 3) describes the transportation issues in the region, identifies and quantifies regional needs expressed within both a short- and long-range framework, and maintains internal consistency with the financial element fund estimates. Related goals, objectives, and policies are provided along with performance indicators and measures.
- **The Action Element** (Chapter 4) identifies plans to address the needs and issues for each transportation mode in accordance with the policy element.
- **The Financial Element** (Chapter 5) identifies the current and anticipated revenue sources and financing techniques available to fund the planned transportation investments described in the action element. The intent is to define realistic financing constraints and opportunities.

1.5 Inter-Agency Coordination and Planning Consistency

1.5.1 Transportation/Land Use Integration

The current Calaveras County General Plan Land Use Element supports growth in and around existing areas of development in order to provide the greatest access to public services and facilities. The Land Use Element promotes quality-of-life improvements in Calaveras County through safe, well-designed development while preserving property rights and addressing economic needs.

1.5.2 Coordination with Other Plans and Studies

- Calaveras County Regional Transportation Plan (2012);
- Calaveras County General Plan (1996);
- DRAFT Calaveras County General Plan (2017);
- City of Angels General Plan (2020);
- Ten-Year State Highway Operation and Protection Plan (SHOPP Plan) (2015);
- Calaveras County Unmet Transit Needs;
- STIP Fund Estimate, CTC (Jan 2016);
- California Strategic Highway Safety Plan (2015);
- Calaveras County Coordinated Public Transit-Human Services Transportation Plan (2014);
- Calaveras County Regional Bicycle, Pedestrian, and Safe Routes to School Plan (2015);
- Calaveras Transit Short Range Transit Plan (2016).

1.5.3 Coordination with the California State Wildlife Action Plan

According to the California State Wildlife Action Plan (SWAP), Calaveras County is located in the Central Valley and Sierra Nevada ecological management province, which is further delineated in the Sierra Nevada and Sierra Nevada foothills ecoregions. The SWAP identifies sensitive species, habitat stressors and suggested conservation goals and actions for each of the sub-ecoregions within the Provinces. Calaveras County contains ten sub-ecoregions (referred to as “conservation units” in the SWAP), ranging from Alpine

vegetation to Chaparral. According to the SWAP, the major stressors within these ten conservation units are as follows:

- Annual and Perennial Non-timber Crops,
- Climate Change,
- Dams and Water Management/Use,
- Fire and Fire Suppression,
- Housing and Urban Areas,
- Invasive Plants/Species,
- Livestock, Farming and Ranching,
- Logging and Wood Harvesting,
- Parasites/Pathogens/Diseases,
- Recreational Activities,
- Renewable Energy,
- Roads and Railroads,
- Utility and Service Lines.

The SWAP identifies the following conservation strategies that can be used to improve the health of the ecoregions within Calaveras County.

- Collect and analyze data regarding the target.
- Provide outreach and education.
- Advocate for laws and policies.
- Develop management plans.
- Protect land through acquisition, easement, or lease.
- Provide economic incentives for improved resource management.

For a full list of sensitive species and habitat stressors and for a complete discussion on conservation strategies for Calaveras County and the Central Valley and Sierra Nevada Province, see Appendix C.

1.6 Public Participation

1.6.1 Community Outreach Efforts

The Calaveras Council of Governments adopted a Title VI Program and Public Participation Plan in May of 2015. The Public Participation Plan provided the framework for the outreach process necessary for successful public participation in the development of the 2017 RTP (see Appendix B for the public participation plan and public outreach documents). A summary of the public meetings conducted as part of the development process of this RTP is shown in Table 1.1.

Table 1.1 Public Meeting Summary		
Meeting	Date	Location
CCOG Regular Meeting	May 17, 2017	Board of Supervisors Chambers, San Andreas
CCOG Regular Meeting	June 7, 2017	Board of Supervisors Chambers, San Andreas
CCOG Regular Meeting	August 2, 2017	Board of Supervisors Chambers, San Andreas
Community Meeting #1	October 4, 2016	Town Hall, San Andreas
Community Meeting #2	January 31, 2017	Bret Harte High School, San Andreas
Community Meeting #2	February 2, 2017	Town Hall, San Andreas
Kick-Off Meeting	May 11, 2016	Board of Supervisors Chambers, San Andreas

1.7 Coordination with Calaveras County Resource Agencies

The Draft RTP, CEQA environmental document and checklist were distributed to various commercial interests and governmental and resource agencies through the State Clearinghouse process. Agencies were either provided a review copy of documents, or they received a copy of the Notice of Availability saying where the documents can be viewed (in person and on the internet). The following agencies and groups were contacted regarding this document (see Appendix A for complete stakeholder list):

- State/Local Representatives from environmental communities;
- State/Local Representatives from economic communities;
- Airport;
- Transit;
- Freight;
- Federal land management agencies;
- State/Local agencies responsible for land use;
- State/Local agencies responsible for natural resources;
- State/Local agencies responsible for environmental protection;
- State/Local agencies responsible for conservation;
- State/Local agencies responsible for historic preservation.

1.8 Native American Tribal Government Consultation and Coordination

In the interest of cooperation and improved planning, the RTP process consulted with and considered the interests of Tribal Governments in Calaveras County. There is one federally recognized tribal government in Calaveras County: the California Valley Miwok Tribe, California (formerly known as the Sheep Ranch Rancheria of Me-Wuk Indians of California). The tribe was contacted to discuss transportation deficiencies, system improvements ideas, and for correspondence regarding tribal project lists.



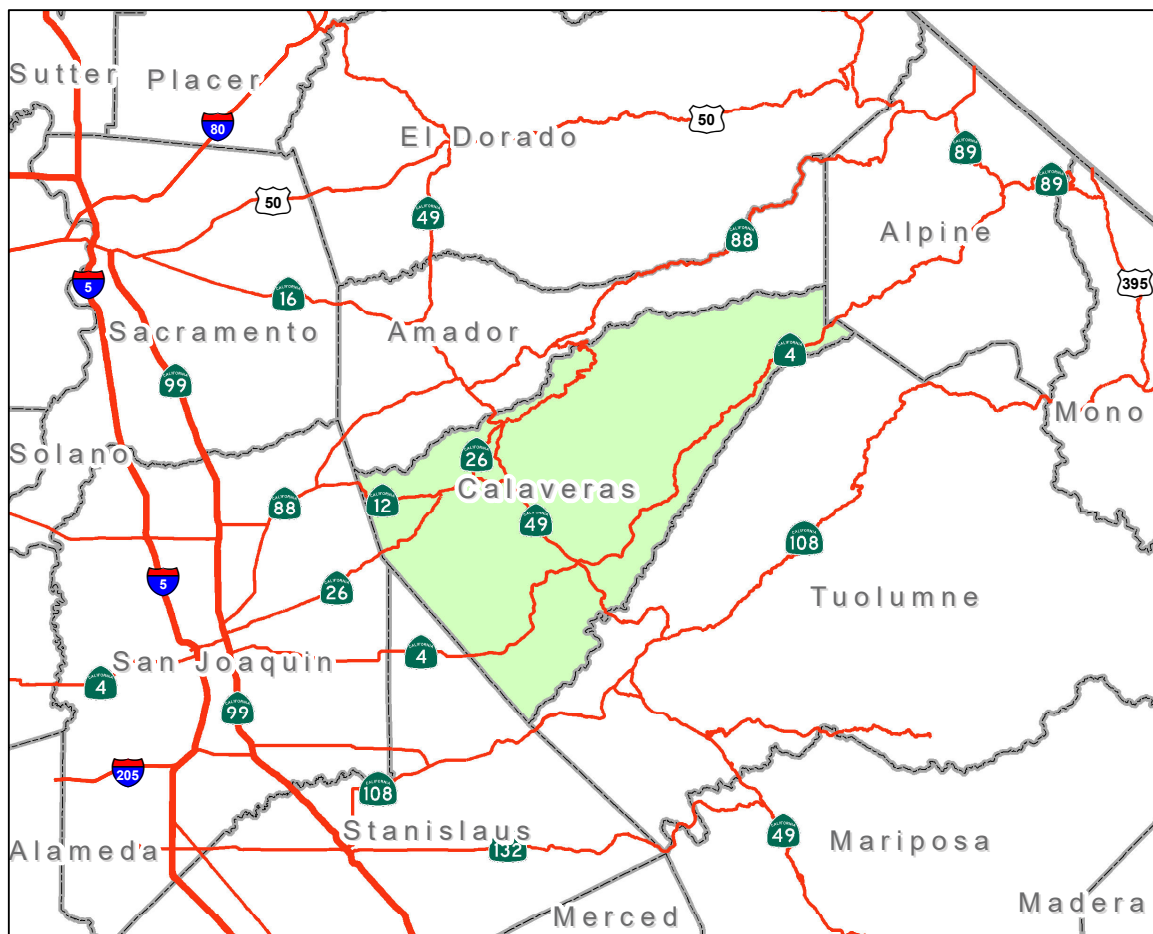
2 EXISTING AND FUTURE CONDITIONS

2.1 About Calaveras County

Calaveras County covers foothill and high-Sierra terrain in central-eastern California. It is approximately 40 miles southeast of Sacramento, CA and 100 miles southeast of Reno, Nevada. The County is comprised of approximately 1,020 square miles, making it the 19th smallest of the 58 counties in California, by area. With a population estimate of 44,921 in 2014, Calaveras County has the 15th smallest population in California. The County is bordered by Amador County to the north, Alpine County to the east, Tuolumne County to the south, and San Joaquin and Stanislaus Counties to the west (Figure 2.1). Calaveras County contains the incorporated City of Angels, the census-designated places of Arnold, Avery, Copperopolis, Dorrington, Forest Meadows, Mokelumne Hill, Mountain Ranch, Murphys, Rail Road Flat, Rancho Calaveras, San Andreas, Vallecito, Valley Springs, Wallace and West Point and the Native American Tribal Government of the California Valley Miwok Tribe of California. San Andreas is the county seat.

Calaveras County contains three rivers: Calaveras River, Mokelumne River and North Fork Stanislaus River. The northern portion of the Stanislaus National Forest is located in Calaveras County. Elevation in the County ranges from close to sea-level in the foothills to over 8,000 feet in the Sierras. The climate is characterized by warm, dry summers and cold winters. The average rainfall is 36 inches annually, and the average snowfall is 23 inches annually. Tourist attractions in the County range from gold-panning and wine-tasting to skiing, camping, hiking, fishing, cavern-exploring and bicycling.

Figure 2.1 – Location of Calaveras County



2.2 Demographics

2.2.1 Existing and Future Population

The 2010 American Community Survey estimates the January 2010 population for Calaveras County at approximately 45,578. In January 2017, the population grew to approximately 45,726 (according to the California Department of Finance (DOF)). The distribution of the population is shown in Table 2.1. The unincorporated county accounts for over 91% of the total population, and the incorporated City of Angels (commonly referred to as Angel’s Camp) comprises the remaining 9%. Although Angel’s Camp has grown an average of 1.32% per year between 2010 and 2017, the overall county population declined at an average rate of 0.33% annually during this period. According to the 2014 American Community Survey, the population density in Calaveras County is 44 people per square mile, well below the state average of 233 people per square mile. These population estimates do not reflect the large number of tourists who visit Calaveras County to enjoy the many activities the County has to offer. According to the Calaveras Visitors Bureau, over a million visitors come to the County annually, and tourism supports 2,400 jobs in the County and contributes nearly \$6 million in state and local taxes.

Table 2.1 Calaveras County Population Distribution					
	Population 2010	Population 2017	Population 2027	Population 2037	Annual Percent Change (2017-2037)
Angel's Camp ⁽¹⁾⁽²⁾	3,836	4,090	4,126	4,163	0.09%
Unincorporated Area ⁽¹⁾⁽²⁾	41,742	40,993	42,432	44,042	0.37%
Total County Population⁽³⁾	45,578	44,818	46,558	48,205	0.38%

Sources: (1) - 2010 Decennial Census, US Census Bureau
 (2) - California Department of Finance Table E:1 City/County Population Estimates
 (3) - California Department of Finance Table P:1 State/County Population Projections

2.2.2 Existing and Future Age of Population

Table 2.2 shows the age trends over the lifetime of the RTP. The most notable change in upcoming decades is a decrease in younger age groups, particularly the 5-17 and 25-64 age groups, and an increase in the 65+ age groups.

Table 2.2 Existing and Future Age of Population									
		Total	Ages 0-4	Ages 5-17	Ages 18- 24	Ages 25- 64	Ages 65- 74	Ages 75- 84	Ages 85+
2010	Number	45,654	1,985	6,903	2,922	24,151	5,879	2,825	989
	Percent	100.0%	4.3%	15.1%	6.4%	52.9%	12.9%	6.2%	2.2%
2020	Number	48,957	1,844	6,404	3,329	23,135	8,550	4,253	1,442
	Percent	100.0%	3.8%	13.1%	6.8%	47.3%	17.5%	8.7%	2.9%
2030	Number	53,317	1,796	6,529	3,871	22,848	9,610	6,516	2,147
	Percent	100.0%	3.4%	12.2%	7.3%	42.9%	18.0%	12.2%	4.0%
2040	Number	55,881	1,982	6,462	3,914	23,715	8,865	7,396	3,547
	Percent	100.0%	3.5%	11.6%	7.0%	42.4%	15.9%	13.2%	6.3%

Source: California Department of Finance Report P:1 State and County Population Projections by Major Age Groups

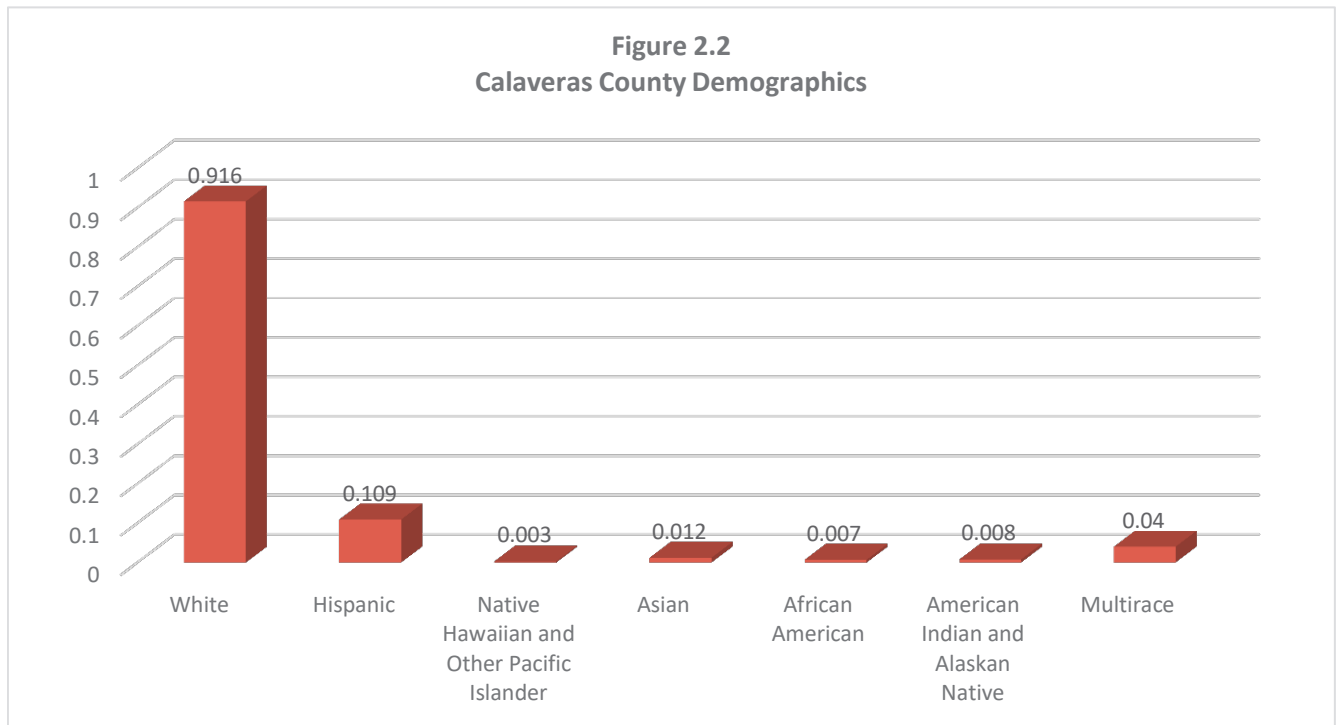
2.2.3 Existing and Future 65+ Population

The median age of Calaveras County residents is 50.3 years old (US Census American Community Survey (ACS) 2010-2014). According to the data from the California DOF Demographic Research Unit, Calaveras County’s 65+ demographic accounted for approximately 21.23% of the population in 2010. This demographic is expected to continue to grow throughout the lifetime of the RTP, reaching over 35% by 2040 (see Table 2.3).

Table 2.3 Calaveras County Age of Population Forecast				
	2010	2020	2030	2040
65+ Population	21.23%	29.10%	34.27%	35.45%
Source: State of California Department of Finance, P-1 2014				

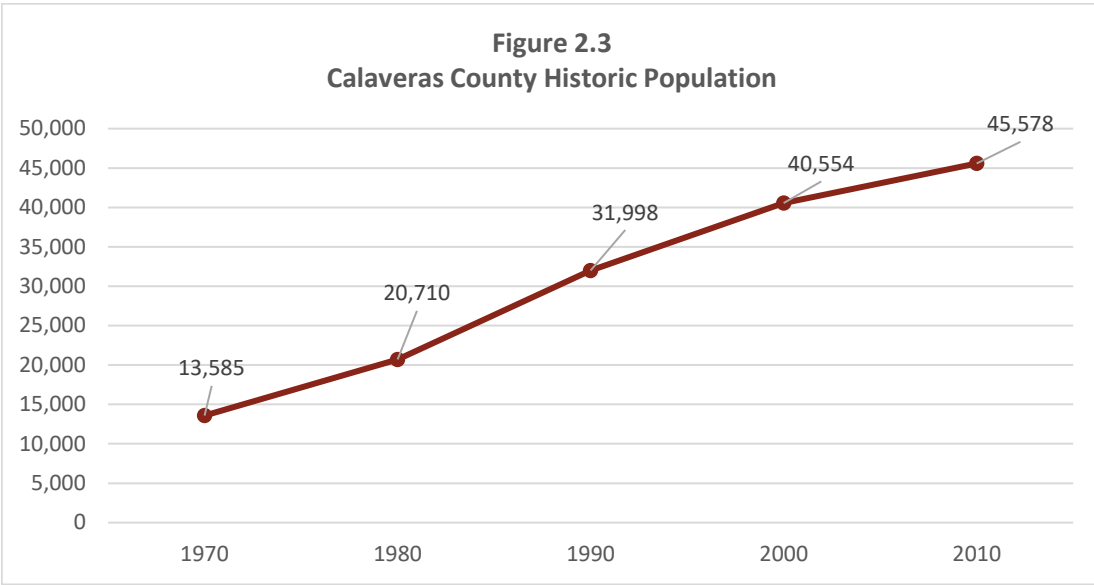
2.2.4 Demographics

The Calaveras County population is predominately white (91.6%); however, there is a notable Hispanic population (10.9%). The demographics of Calaveras County are detailed in Figure 2.2 (American Community Census, 2010-2014 estimates). Demographic trends have remained largely unchanged between 2000 and the latest 2014 estimates, and it is not expected to change much over the lifetime of the RTP.



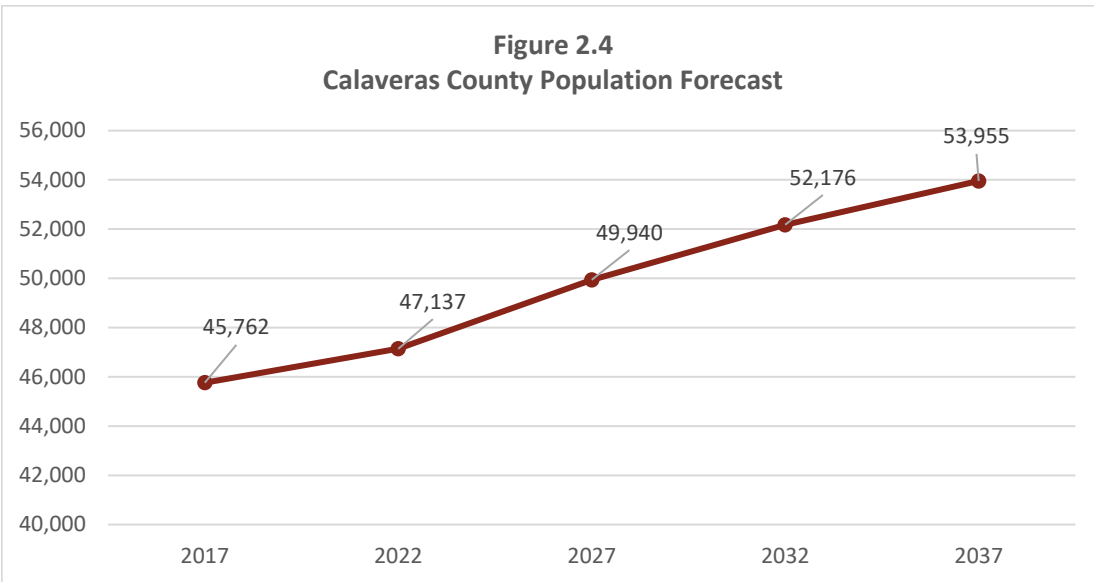
2.2.5 Historic Population Growth

The population of the County has been steadily increasing since 1970. Between January 2000 and January 2010, Calaveras County’s population increased by 1.2% per year on average (Figure 2.3).



2.2.6 Existing and Future Population Growth

Calaveras County is expected to follow similar growth patterns in the next 20 years. The DOF reports a population increase by approximately 0.9% per year on average between 2017 and 2037 (Figure 2.4).



2.3 Socioeconomic Conditions

Transportation needs stem from travel demand, which is influenced by current socioeconomic conditions. The number of households in the County, employment levels, the transportation network, the intensity and location of development, employment centers and recreation needs affect travel demand.

2.3.1 Existing Housing

The total number of housing units in Calaveras County reached an estimated 28,006 in 2014 (Table 2.4). The vacancy rate in the County is much higher than California, which is reflective of the large number of second-home ownership in the County for vacationers. The amount of owner-occupied dwellings is significantly higher than that of California, which has a much higher proportion of dwellings that are occupied by renters.

Table 2.4 Selected Housing Characteristics					
	Total Housing Units	Housing Occupancy		Housing Tenure of Occupied Dwellings	
		Occupied	Vacant	Owner-Occupied	Renter-Occupied
Calaveras County	28,006	66%	34%	79%	21%
California	13,781,929	92%	8%	55%	45%

Source: 2014 American Community Survey

2.3.2 Future Housing

According to Caltrans forecasts, the number of households will grow at a slightly quicker pace than the population over the lifetime of this RTP. This indicates that there will be a shift towards smaller household sizes. This supports the population age forecasts, as the County is expected to have an aging population (1- or 2- people households) with fewer young families with children.

Table 2.5 Future Housing						
	2017	2022	2027	2031	2037	Average Annual % Change
Population	46,026	47,886	49,232	50,589	51,601	0.61%
Households (Occupied)	19,408	20,314	21,140	21,816	22,391	0.77%

Source: Caltrans 2015 California County-Level Forecast

2.3.3 Existing Employment

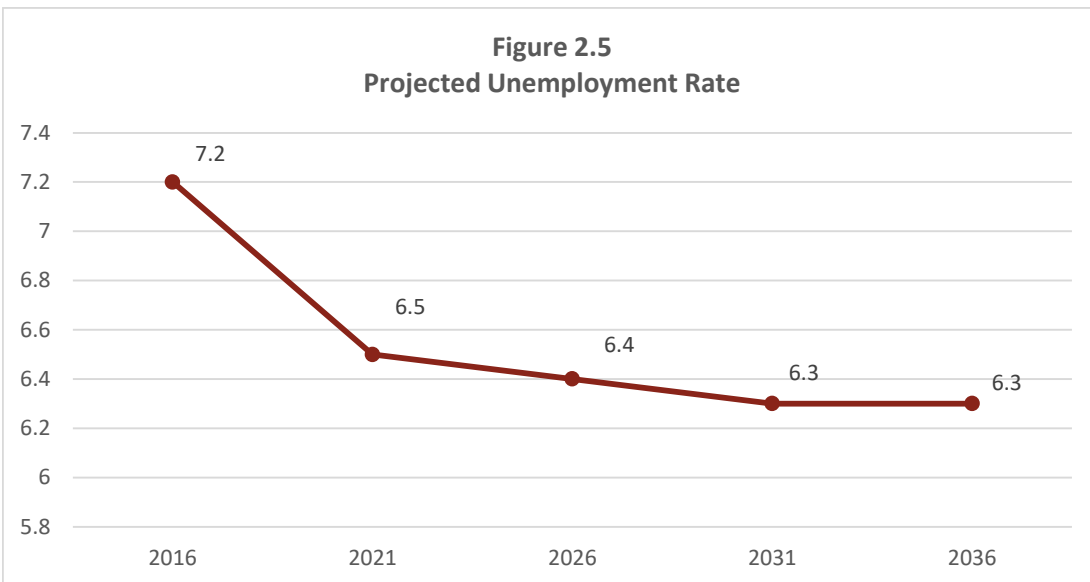
The total number of employed persons in Calaveras County was estimated at 16,536 in 2014, according to the 2014 American Community Survey. The major employers within the County (50 or more employees) are detailed in Table 2.6. According to the US Bureau of Labor Statistics, the unemployment rate for Calaveras County was 6.5% in 2015, which is only slightly higher than the California rate of 6.2%.

Table 2.6 Major Employers in Calaveras County			
Name	Location	Industry	Employed
Bear Valley Mountain Resort	Bear Valley	Skiing Tours	250 - 499
Forestry & Fire Protection	San Andreas	Government - State	250 - 499
Mark Twain Medical Center	San Andreas	Hospitals	250 - 499
Bret Harte High School District	Vallecito	Schools	100 - 249
Ironstone Vineyards	Murphys	Wineries	100 - 249
Mark Twain Convalescent Hospital	San Andreas	Nursing & Convalescent Homes	100 - 249
Native Daughter's - Golden West	Murphys	Fraternal Organizations	100 - 249
Rite-Passage-Sierra Ridge Academy	San Andreas	Residential Care Homes	100 - 249
Big Trees Market	Arnold	Grocers - Retail	50 - 99
County of Calaveras	San Andreas	Government - County	50 - 99
Calaveras High School	San Andreas	Schools	50 - 99
Independent Learning Center	San Andreas	Schools	50 - 99
John Vierra High School	Vallecito	Schools	50 - 99
Mark Twain Medical Center	Angel's Camp	Hospitals	50 - 99
Mark Twain Medical Center	Copperopolis	Hospitals	50 - 99
Mark Twain St. Joseph's Hospital	San Andreas	Hospitals	50 - 99
Mark Twain St. Joseph's Hospital	Copperopolis	Hospitals	50 - 99
Robert Mondavi Winery	Valley Springs	Wineries	50 - 99
Saddle Creek Resort	Copperopolis	Resorts	50 - 99
Smith Timber Company	Wilseyville	Sawmills	50 - 99

Source: California Employment Development Department

2.3.4 Future Employment

According to the Department of Transportation (DOT) County-Level Economic Forecast Reports (2013-2040), Calaveras County is identified as a “vulnerable county” due to slow population growth, which constrains the labor market. Although this is true, it is expected that the unemployment rate in Calaveras County will drop in the next twenty years. Future employment growth is expected to occur in sectors such as construction, leisure and hospitality, education and healthcare, and government.



2.3.5 Existing Income

The median household income in Calaveras County was estimated at \$54,936 in 2014 (Table 2.7). Although slightly lower than the California median income of \$61,489, the County has a lower cost of living than the California average, as evidenced by the much lower average home value in Calaveras County.

Table 2.7 Median Household Income and Average Home Price		
	Calaveras County	California
Median Household Income	\$ 54,936	\$ 61,489
Average Home Value	\$ 242,600	\$ 371,400
Median Household Income as % of Average Home Value	23%	17%

Sources: 2010-2014 American Community Survey Population Estimates

2.3.6 Future Income

According to the Caltrans 2015 California County-Level Forecasts, per capita income is expected to increase at a rate 10% greater than the population growth over the lifetime of the RTP. In addition to inflation, a shift in the employment sectors from industrial to technical/professional may explain the gap.

Table 2.8 Future Income in Calaveras County						
	2017	2022	2027	2032	2037	Average Annual % Change
Total Employment	8,990	9,320	9,470	9,710	9,950	0.53%
Per Capita Income	\$ 51,100	\$ 64,500	\$ 77,500	\$ 90,700	\$ 106,800	5.50%

Source: Caltrans 2015 California County-Level Forecast

2.4 Travel

2.4.1 Vehicle Ownership

The majority of households with no vehicles available are single-person households, followed by households with 4 or more people living in them. These two groups, likely comprised of seniors (1-person households) and families with children (4+ -person households) are vulnerable due to the lack of access to a vehicle.

Table 2.9 Vehicle Ownership by Household					
	1-Person Household	2-Person Household	3-Person Household	4+-Person- Household	Total
No Vehicle Available	10.3%	1.3%	2.1%	3.8%	4.1%
1 Vehicle Available	54.5%	14.4%	14.9%	5.5%	23.6%
2 Vehicles Available	26.1%	51.4%	39.4%	39.7%	41.4%
3 Vehicles Available	5.9%	23.8%	23.6%	27.3%	19.7%
4+ Vehicles Available	3.2%	9.1%	20.0%	23.7%	11.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

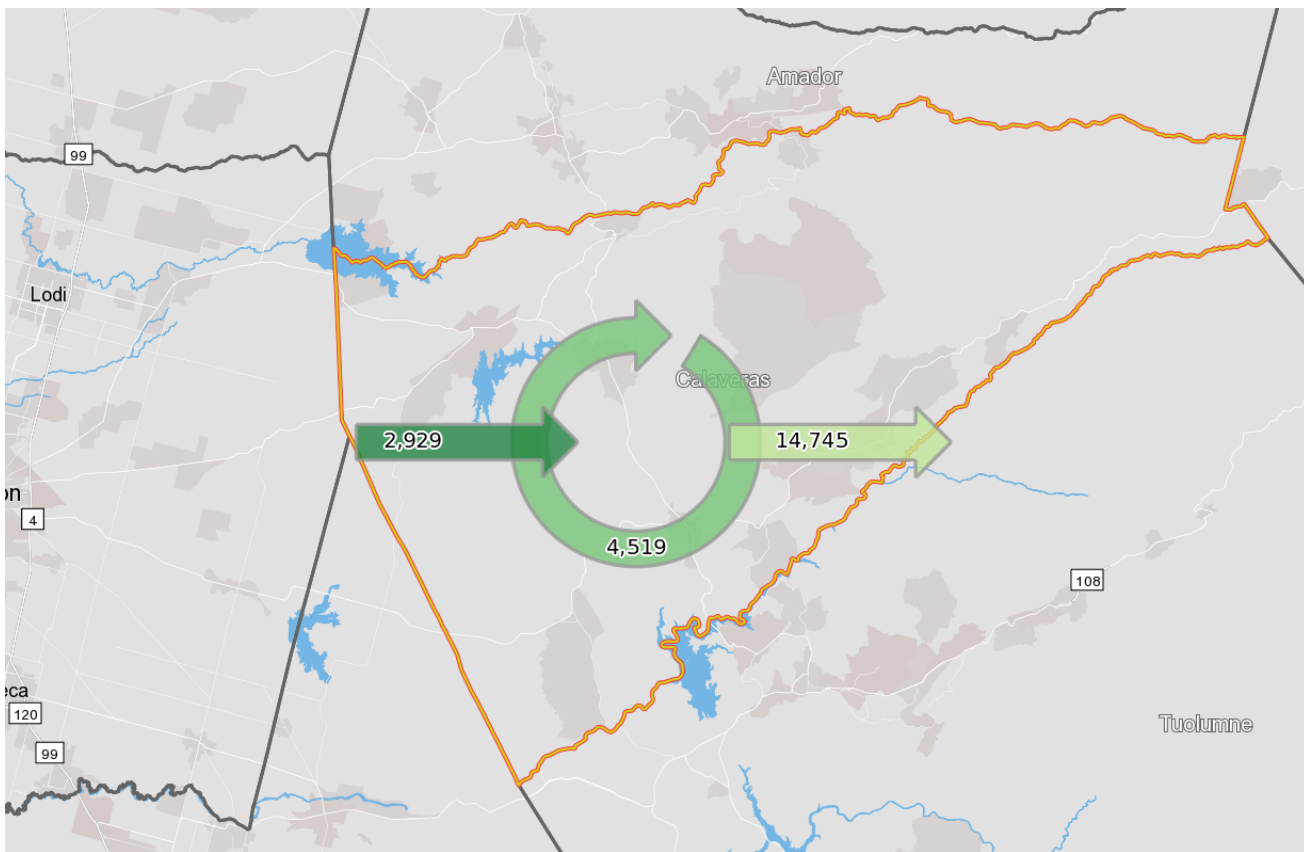
Source: American Community Survey Estimates, 2014

2.4.2 Commuting Patterns

Out of the estimated 16,536 workers with employment in Calaveras County in 2014, approximately 1,732 are commuting from neighboring counties (Table 2.10). The largest sources of out-of-County commuters are Tuolumne County to the south (572 workers), San Joaquin County to the west (440 workers) Amador County to the north (396 workers) and Stanislaus County to the west (155 workers).

In addition, approximately 8,707 Calaveras County residents commute outside of the county for employment (see inflow/outflow figure below). The largest employment sources for Calaveras residents are located in San Joaquin County (3,175), Amador County (1,944), Tuolumne County (1,075), and Sacramento County to the northwest (572).

Inflow/Outflow Counts of Primary Jobs for Selection Area in 2014
All Workers



Map Legend

Selection Areas

Analysis Selection

Note: Overlay arrows do not indicate directionality of worker flow between home and employment locations.

- Employed and Live in Selection Area
- Employed in Selection Area, Live Outside
- Live in Selection Area, Employed Outside



Table 2.10 Commuting Characteristics for Calaveras County Residents			
Workers Commuting to Calaveras County		Workers Commuting from Calaveras County	
County	Number of Workers	County	Number of Workers
Tuolumne	572	San Joaquin	3175
San Joaquin	440	Amador	1944
Amador	396	Tuolumne	1075
Stanislaus	155	Sacramento	572
Sacramento	63	Alameda	484
Mariposa	34	Stanislaus	347
Merced	25	Contra Costa	243
Alameda	17	Santa Clara	221
Santa Clara	12	Alpine	212
Santa Cruz	12	Yolo	111
Madera	6	Solano	99
Alpine	0	San Francisco	80
Contra Costa	0	Mariposa	52
El Dorado	0	El Dorado	27
Placer	0	Santa Cruz	23
San Francisco	0	Placer	18
San Mateo	0	San Mateo	13
Solano	0	Madera	11
Yolo	0	Merced	0

Source: California Employment Development Department, County to County Commute Patterns

2.4.3 Mode of Travel

Travel in Calaveras County is predominantly accomplished by single-occupant vehicles (77.3%). Approximately 11.7% of workers carpooled to work, 7.1% worked from home, and 2.9% walked to work.

Table 2.11 Mode of Travel for Calaveras County Residents		
	Number of Workers	Percent Total
Workers 16 Years and Over	16,536	100.0%
Means of Transportation to Work		
Public Transportation	43	0.3%
Walked	478	2.9%
Bicycle, Taxicab, Motorcycle, or Other Means	126	0.8%
Worked at Home	1,171	7.1%
Vehicle	14,718	
Drove Alone	12,784	77.3%
Carpooled	1,934	11.7%

Source: 2014 American Community Survey Estimates

2.5 Transportation Network

The transportation network is defined by the connection of roadways, transit service, bicycle and pedestrian facilities that allow residents and visitors to Calaveras County to move about efficiently. The network can include many different modes of transportation options in and connected to the region.

2.5.1 Road Classification

Figure 2.6 displays the roadway classifications in Calaveras County. The following provides a narrative description of each of the three classifications: arterials, collectors and local roads. These classifications are defined by the Federal Highway Administration and used for transportation planning and engineering purposes. The general function and development characteristics of the current classification system are described below:

Arterials provide the highest level of service at the greatest speed for the longest uninterrupted distance, with some degree of access control. State Route 49 through Calaveras County and SR 4 from the Stanislaus County Line to SR 49 in Angels Camp are designated Principal Arterials and on the National Highway System (NHS). State Routes 12 and 26 through Calaveras County, and SR 4 from SR 49 in Angels Camp to Alpine County, are designated as Minor Arterials.

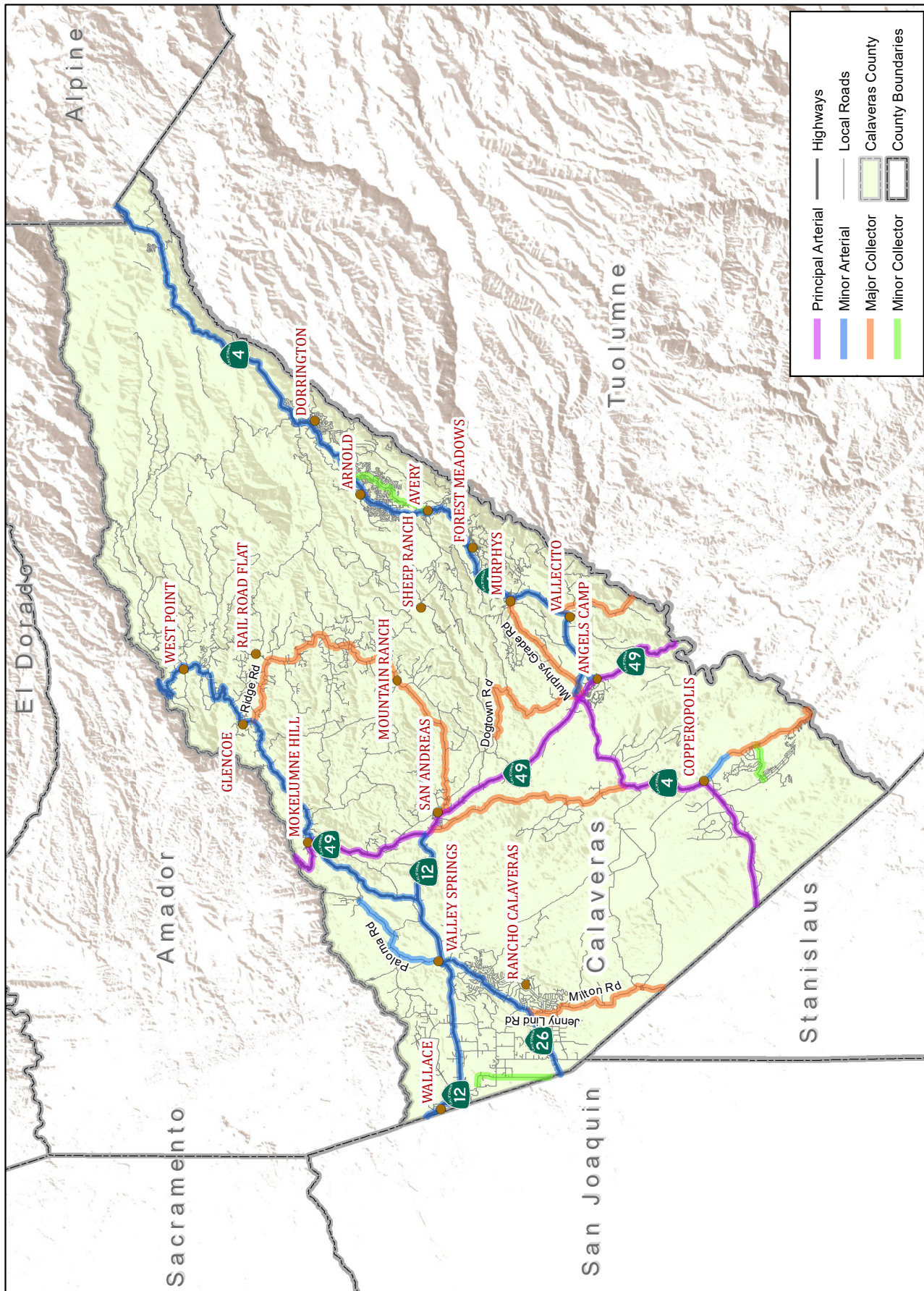
Collectors provide a less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials. The FHWA further delineates collectors into major and minor collectors. Major collectors connect to arterials or regional destinations, and minor collectors generally connect local roadways to major collectors. Major collectors in Calaveras County serve primarily intra-county travel serving smaller communities and countywide trip generators, such as consolidated school, shopping and recreational destinations. Trip lengths may be comparable to those of minor arterials in low density areas. Examples of major collectors in Calaveras County include Murphys Grade Road, Parrots Ferry Road and O'Byrnes Ferry Road. Examples of minor collectors in Calaveras County include Copper Cove Drive, Ospital Road and Moran Road.

Local Roads provide access to adjoining properties and primary residences. There is virtually no through traffic as they serve to primarily provide access to adjacent arterials and collectors. Local roads constitute the remaining roadway mileage not classified as arterial or collector in Calaveras County.

2.6 Transportation Network in Calaveras County

A total of 1,097.46 miles of maintained roadways exist in Calaveras County. The mileage includes four State Routes (SR 4, SR 12, SR 26, and SR 49) equaling 151 miles, and County-maintained roads, which comprises the bulk of the roadway system in the County at 762 miles, as seen in Table 2.12.

Table 2.12 also shows the average daily vehicle miles of travel (VMT) for Calaveras County. As mentioned in Section 13.1 Planning Legislation, the 2017 RTP guidelines incorporate California's Senate Bill 743 (SB 743), which requires a change in transportation impact metrics used in the CEQA process from Level of Service (LOS) to Vehicle Miles Traveled (VMT). VMT provides a more accurate correlation with sustainable growth than the previously used metric, Level of Service (LOS). LOS measures congestion and traffic delays, and LOS is traditionally improved by increasing roadway capacity through the addition of roadway lanes or turning lanes. In contrast, VMT measures actual distances traveled. Furthering consistency with national goals for greenhouse gas (GHG) emissions reductions. Reductions in VMT are achieved through the development of multimodal transportation networks and diversity in land use planning. The region is transitioning to VMT.



Roadway Classification in Calaveras County

Figure 2.6

Table 2.12 Calaveras County Roadways 2013						
Jurisdiction	Maintained Miles		Daily Vehicle Miles of Travel			
Angels Camp	32.21	32.21	13.81	13.81		
Army Corp of Engineers	9.6	9.6	0.67	0.67		
Calaveras County	762.2	0.07	762.27	374.85	0.05	374.9
State Highways	145.53	5.83	151.36	735.7	50.45	786.15
State Park Service	59.25	59.25	5.33	5.33		
US Bureau of Reclamation	3	3	0.29	0.29		
US Forest Service	79.77	79.77	2.39	2.39		
Calaveras Total	1,091.56	5.89	1,097.46	1,133.04	50.5	1,183.54
Source: California Public Road Data 2013						

2.6.1 State Highways

State Route 4 (SR 4) is an east-west 2-lane conventional highway beginning at I-80 near Hercules, California in Contra Costa County and ending at SR 89 near Markleeville in Alpine County. SR 4 has a length of approximately 197 miles and connects the east Bay Area to the central Sierras, passing through Stockton, CA and Copperopolis, City of Angels, Vallecito, Murphys, Forest Meadows, Avery, Arnold, Big Trees and Dorrington in Calaveras County.

State Route 12 (SR 12) is an east-west 2-lane conventional highway that begins at State Route 116 in Sebastopol in Sonoma County, CA and ends at SR 49 near San Andreas in Calaveras County. SR 12 has a length of approximately 141 miles. SR 12 connects the North Bay area to Calaveras County and passes through Fairfield, Lodi, and Wallace, Valley Springs and San Andreas in Calaveras County.

State Route 26 (SR 26) is an east-west 2-lane conventional highway beginning at SR 99 near Stockton and ending at SR 88 near Pioneer in Amador County. SR 26 is approximately 62 miles long and connects the Calaveras communities of West Point, Glencoe, Rich Gulch, Mokelumne Hill and Valley Springs to Stockton and the interregional corridors of I-5 and SR 99.

State Route 49 (SR 49) is a north-south 2-lane conventional highway that begins at SR 41 near Oakhurst in Madera County and ends at SR 70 in Vinton in Plumas County. SR 49 has a length of approximately 295 miles. SR 49 connects the historic mining communities in the Sierra foothills, including Mariposa and Bear Valley in Mariposa County, City of Angels, San Andreas and Mokelumne Hill in Calaveras County, Jackson and Sutter Creek in Amador County, Placerville in El Dorado County, Auburn in Placer County, Grass Valley and Nevada City in Nevada County, Downieville, Sierraville and Loyalton in Sierra County, and Chilcoot-Vinton in Plumas County, just east of Reno, Nevada.

2.6.2 Local Roadways

Due to limited funds, many local roadways have pavement conditions that are in need of repair. The average Pavement Condition Index (PCI) for roadways in Calaveras County is 51 (California Local Streets & Roads Needs Assessment 2016 Update). PCI values range from 0-100, and optimally, pavement improvements will occur when PCI reaches around 66. As PCI rating gets lower, preventative pavement repair costs increase exponentially. With a PCI of 70 or above, preventative maintenance is relatively inexpensive at about \$4.60-\$4.85/square yard. For PCI between 50 and 70, repair costs go up to about \$18.05-\$18.80/square yard. Once PCI goes below 50 repair costs rise to \$28.45-\$29.73/ square yard, and can go up to almost \$70/ square yard for roads that deteriorate to the point of needing a total reconstruction.

Calaveras County and the City of Angels include over 1,333 lane miles of local roadways with an average pavement condition index of 51. The condition has declined from 55 in 2008 according to the 2016 California Statewide Local Streets and Roads Needs Assessment. The requirements to bring the pavement condition up to an acceptable level are estimated at \$337 million.

2.7 Methods of Network Evaluation

In 2017, the California Transportation Commission adopted guidelines for Regional Transportation Planning Agencies for RTP analysis and modeling. This was the first time separate guidelines have been developed for RTPAs and Metropolitan Planning Organizations, recognizing the inherent differences. The 2017 RTP Guidelines for RTPAs formally recognizes that RTPAs are not required to develop Sustainable Communities Strategies as MPOs are. As such, air quality conformity analysis and travel demand models are not required either. Air quality conformity analysis on regionally significant, federally funded projects is performed by the California Department of Transportation in isolated rural nonattainment and maintenance areas. The Calaveras Council of Governments maintains a land use scenario model that uses UPlan to distribute growth based on land use assumptions. The outputs from the UPlan model are used in the regional travel demand model (TransCAD) to project travel demand. Traffic modeling is performed in the region on a project specific need and utilizes data from the UPlan scenario.

2.7.1 Traffic Collisions

According to the California Highway Patrol Statewide Integrated Traffic Record System (SWITRS) the majority of collisions in Calaveras County occur on State Routes, especially SR 26 and SR 49 near Valley Springs, San Andreas and Angels Camp. The latest data available is for 2014. See Table 2.13 and Figure 2.7 for the collision summary for 2010-2014.

Table 2.13					
Calaveras County Collisions, 2010-2014					
	2010	2011	2012	2013	2014
Total Collisions	275	233	238	188	217
Collisions on State Highways	180	151	140	115	134
Fatalities	11	8	9	7	8
Most Common PCF Violations					
Unsafe Speed	78	59	65	46	49
Improper Turning	58	40	43	36	65
DUI/BUI	38	38	43	35	41
Automobile Right-of-Way	37	17	20	12	22
Wrong Side of Road	36	50	44	43	12
Vehicle Involvement					
Pedestrian Collision	5	7	4	3	3
Bicycle Collision	5	2	3	3	2
Motorcycle Collision	60	36	33	29	33
Truck Collision	6	2	6	9	6
Source: SWITRS					

2.7.2 Truck Traffic

State Routes 49 and 4 have the segments with the highest proportion of truck traffic, ranging from 4.0% - 8.4% of the total traffic (Table 2.14).

Table 2.14 Truck Traffic in Calaveras County, 2014			
Route	Total AADT	Truck AADT	Truck Traffic, as % of Total
State Route 4			
Stanislaus/Calaveras County Line	7,500	337	4.5%
Vallecito	7,600	501	6.6%
Big Trees/Tombell Roads	6,800	340	5.0%
Moran Road East Junction	5,900	236	4.0%
Big Trees State Park	2,575	181	7.0%
Meko Drive	1,350	114	8.4%
State Route 12			
Valley Springs, Jct. Rte. 26 South	7,300	452	6.2%
Toyon, Jct. Rte. 26 North	6,800	408	6.0%
State Route 26			
Jenny Lind Road	4,550	296	6.5%
La Contenta Country Club Entrance	9,650	473	4.9%
Valley Springs, Jct. Rte. 12	6,400	282	4.4%
Mokelumne Hill, Jct. Rte. 49	1,725	78	4.5%
Ridge Road	1,125	67	6.0%
Glenco, Associated Office Road	610	32	5.2%
Winton Road	1,800	72	4.0%
State Route 49			
Tuolumne/Calaveras County Line	5,500	221	4.0%
Angels Camp, South Jct. Rte. 4	11,200	915	8.2%
North Jct. Rte. 4	8,900	375	4.2%
Mountain Ranch Road	7,900	395	5.0%
Jct. Rte. 12 West	6,850	433	6.3%
Mokelumne Hill, Jct. Rte. 26	5,450	381	7.0%

2.8 Transit

The Social Services Transportation Advisory Council (SSTAC) assists the Calaveras Council of Government's (CCOG) in the annual assessment of unmet transit needs. The SSTAC was established by the CCOG and represents transit-dependent groups including older adults, individuals with disabilities and individuals with limited means. In addition to the identification of transit needs in Calaveras County, the SSTAC assists in categorizing transit needs as reasonable or unreasonable to address, and advises the CCOG on any other major transit issue, including the coordination and consolidation of specialized transportation services.

2.8.1 Calaveras Transit

Overview

Calaveras Transit is administered by the Calaveras County Department of Public Works, and operations are carried out by the contracted Paratransit Services. Calaveras Transit provides 6 fixed routes. Deviated service is provided to individuals 65+ years of age or individuals with a disability within three-quarters of a mile of any route, free of additional charge. Calaveras Transit operates Monday through Friday with limited services on Saturday and with the exception of twelve holidays. In the 2016 fiscal year, Calaveras Transit recorded 44,459 passenger trips, operated 11,090 vehicle service hours and 303,574 vehicle service miles.

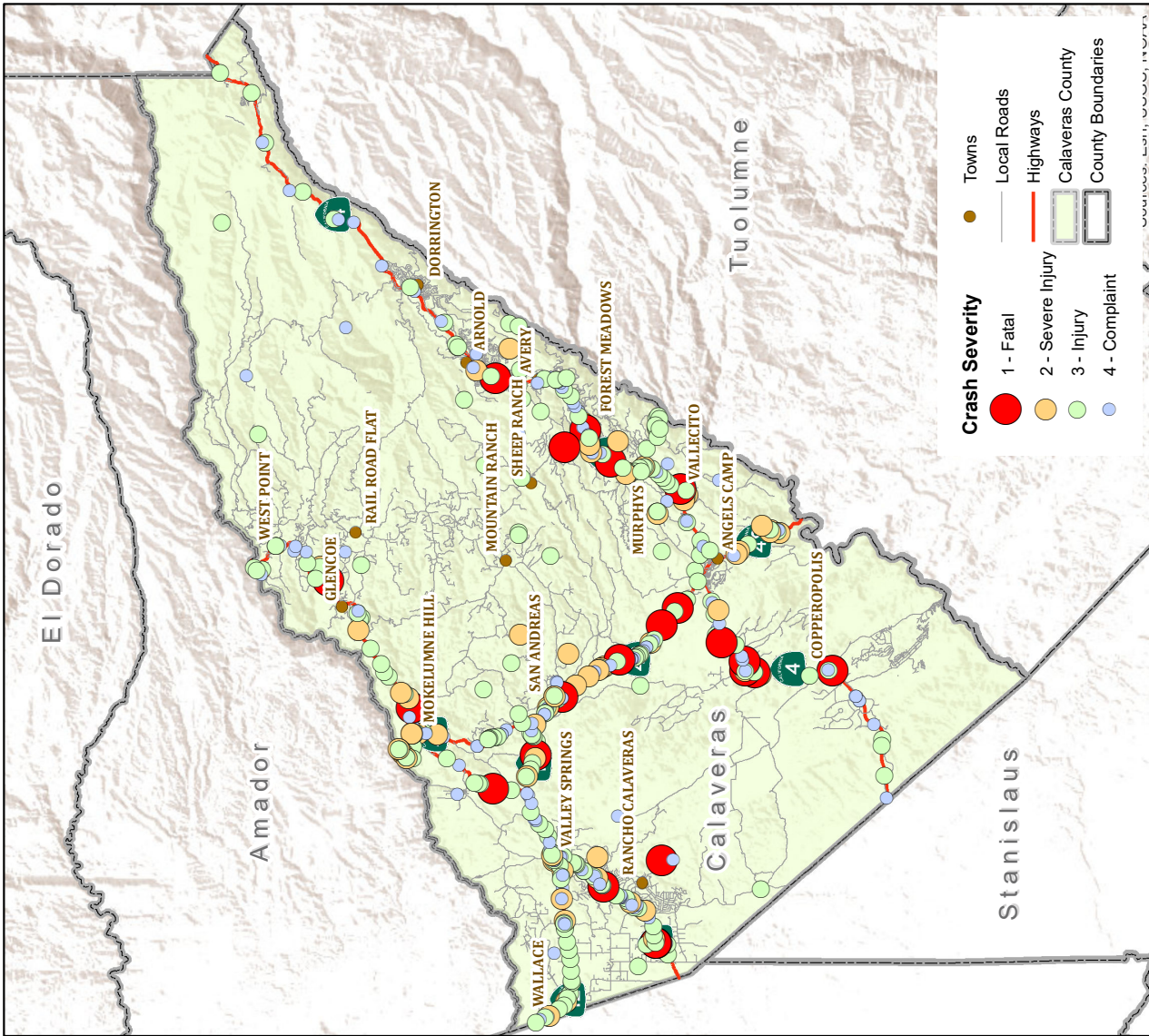
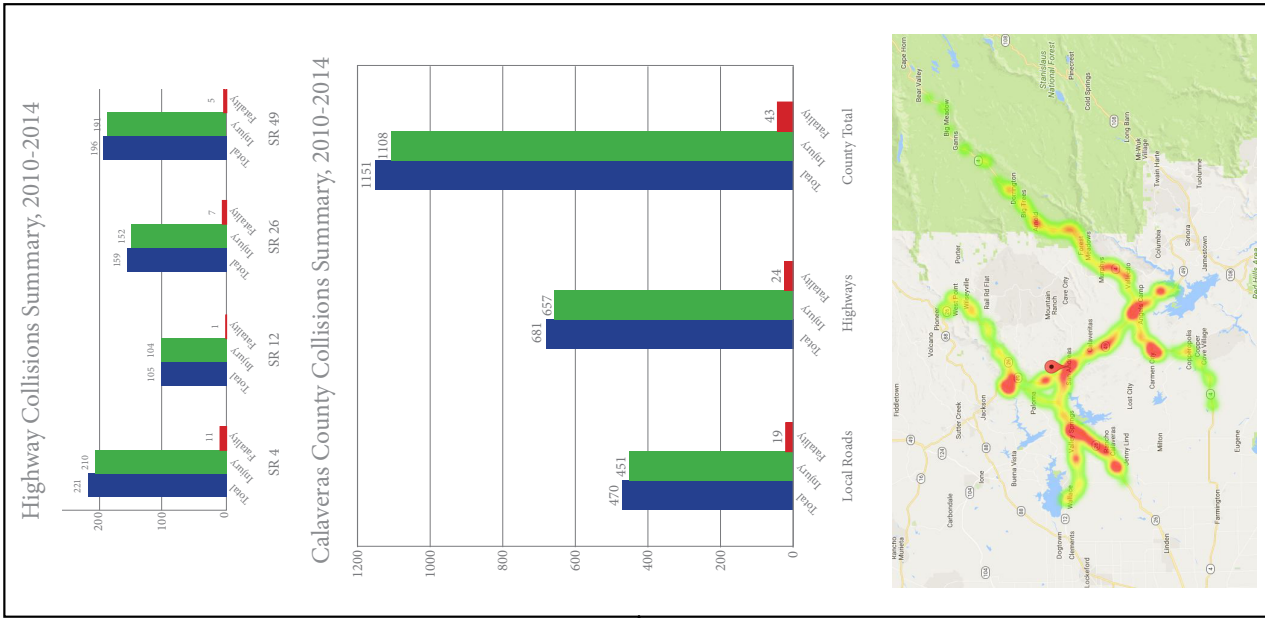
Routes

Calaveras Transit operates six fixed routes, as follows (see Figure 2.8):

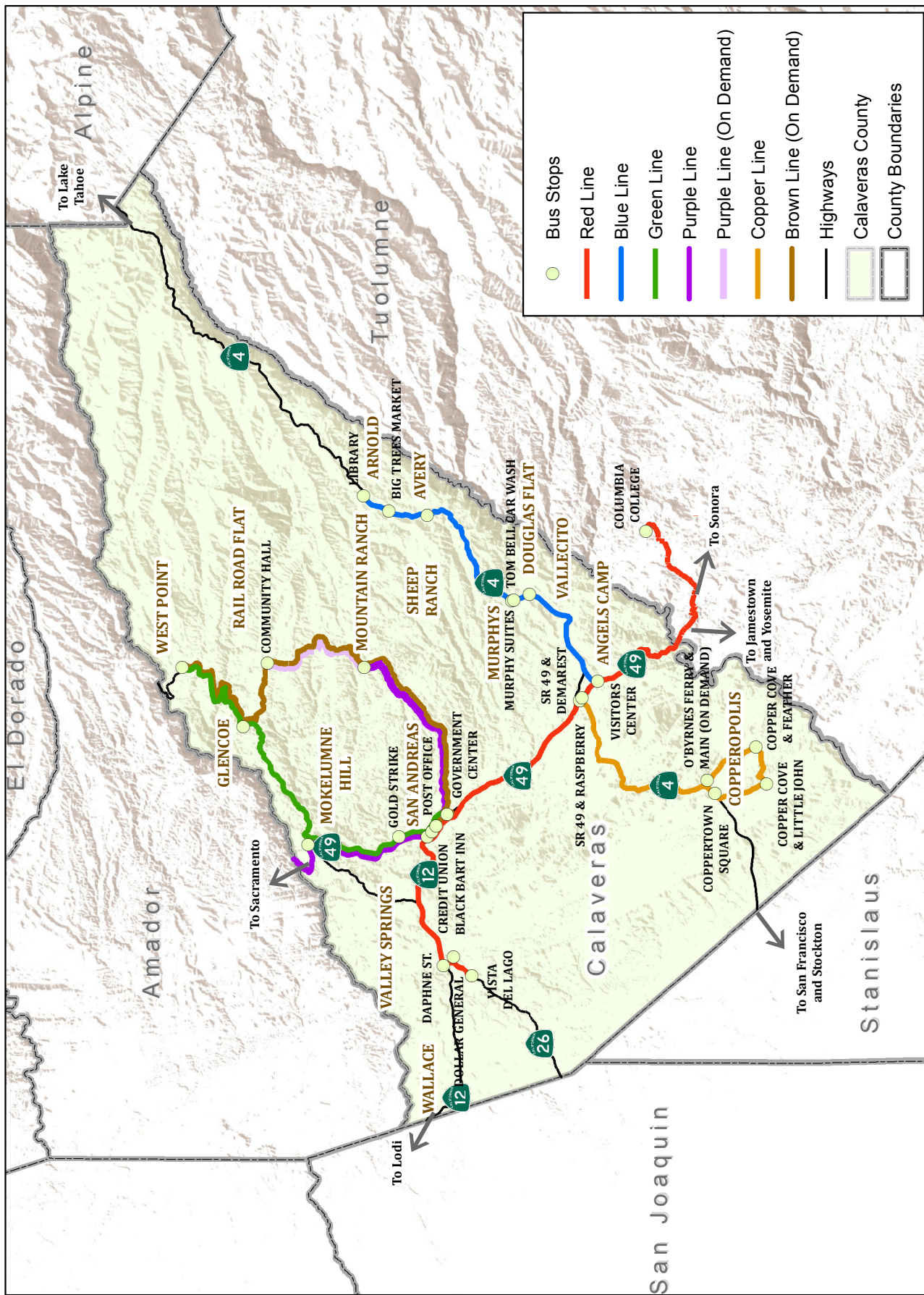
- Red Line – The Red Line travels between Vista del Lago and Columbia College, stopping in Valley Springs, San Andreas, and Angels Camp. Ten daily round-trips are made from 5:50 AM and 7:35 PM.
- Blue Line – The Blue Line travels between Angels Camp and Arnold, with one stop in Murphys. Five daily round-trips are made between 5:10 AM and 7:52 PM.
- Green Line – The Green Line operates on Monday and Wednesdays only (on-demand). The Green line travels between West Point and San Andreas with stops in Glencoe and Mokelumne Hill. Three trips are made between 8:00 AM and 4:25 PM.
- Purple Line – The Purple Line travels from Mountain Ranch to Jackson and back, with a stop in San Andreas. Four daily round-trips are made from 8:02 AM to 6:35 PM; On-Demand service is available at three additional stops on this line.
- Copper Line – The Copper Line travels between Angels Camp and Copperopolis. Four daily trips are made between the hours of 6:40 AM and 7:35 PM; On-Demand Service is available in neighborhoods off Copper Cove Drive and Little John Road.
- Brown Line – The Brown line is On-Demand service only. The Brown Line travels from San Andreas to West Point with stops in Mountain Ranch, Rail Road Flat, and Glencoe. It operates between the hours of 6:35 PM and 8:20 PM.

Saturday Hopper

An abbreviated service is available on Saturdays with a round-trip route traveling between Valley Springs and Arnold with stops in San Andreas, Angels Camp, and Murphys (see Figure 2.9). This service, called the Saturday Hopper, runs approximately every 90 minutes.

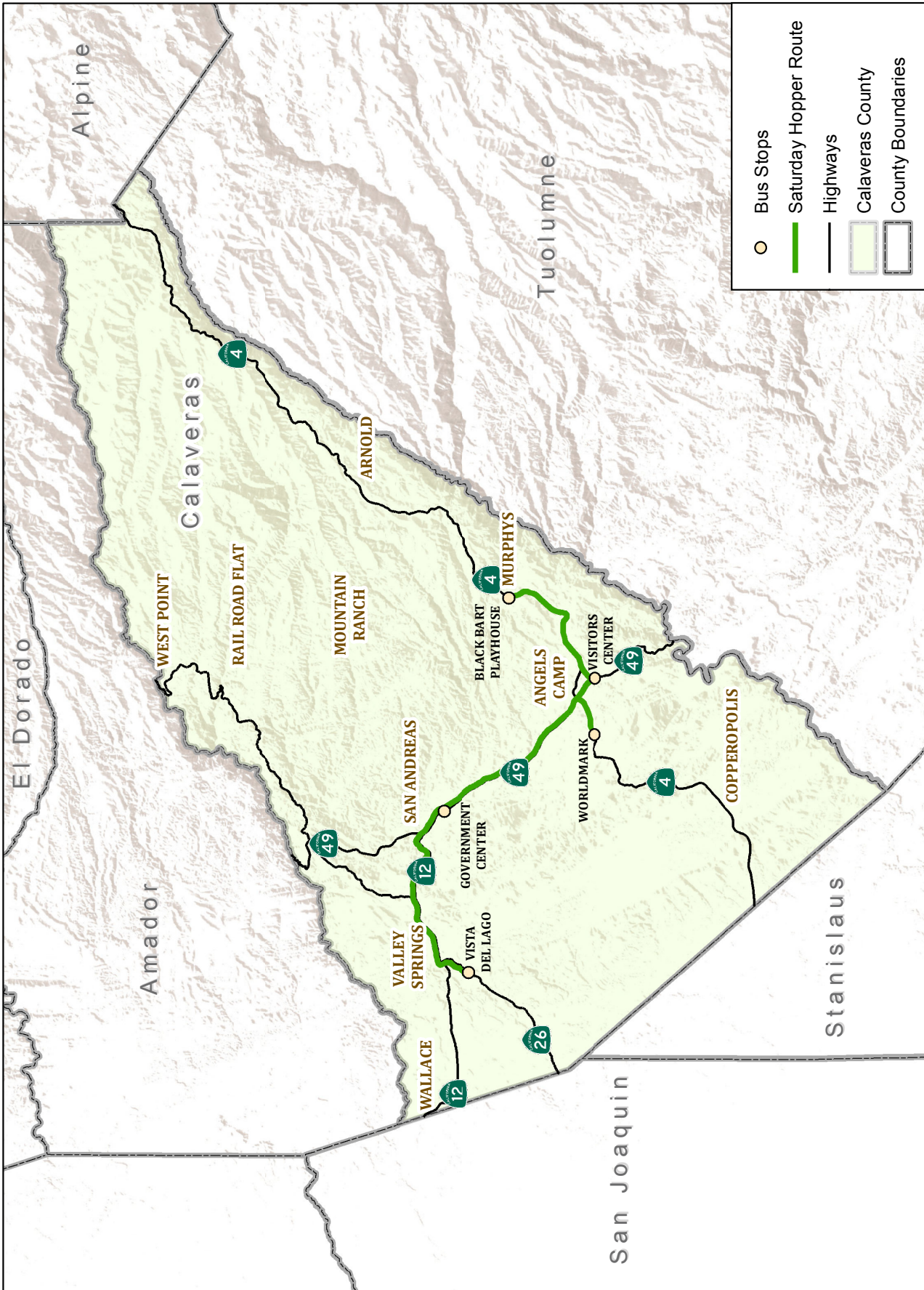


Collision Summary
Figure 2.7



Calaveras Transit Routes

Figure 2.8



Saturday Hopper

Figure 2.9

Fare

Regular fare is offered at \$2.00 for one-way trips and \$5.25 for an all-day pass. Discounted fares (1/2 price for regular tickets and ticket books, and 2/3 price for a monthly pass) are offered to seniors (65+) and individuals with a disability. Passengers traveling between zones must pay as additional \$0.25 per zone change. The seven zones utilized by Calaveras Transit are defined as follows:

- Zone 1 – Between San Andreas and Valley Springs.
- Zone 2 – Between San Andreas and Jackson.
- Zone 3 – Between San Andreas and West Point.
- Zone 4 – Between San Andreas and Angels Camp.
- Zone 5 – Between Angels Camp and Copperopolis.
- Zone 6 – Between Angels Camp and Arnold.
- Zone 7 – Between Angels Camp and Columbia College.

Fares	Regular	Students	Discounted
One-Way Base Fare	\$2.00	\$2.00	\$1.00
All-Day Pass	\$5.25	\$5.25	N/A
Ticket Book (15 Tickets)	\$28.00	\$28.00	\$14.00
Monthly Pass	\$60.00	\$45.00	\$40.00
Saturday Hopper	\$3.00	\$3.00	N/A
Children Under 6	Free (with fare-paying adult)		
Zone Change	\$0.25	\$0.25	\$0.25

Transit Performance

Although the population in Calaveras County has only grown by an average of around 0.9% per year since 2010, Calaveras Transit ridership has decreased by an average of 5% per year between 2011 and 2014 (Table 2.16). The average fare per passenger has increased from \$1.00 in 2011 to \$1.36 in 2014 with a slight decrease in 2012. The fare recovery ratio has increased during this period of time, from 7.19% in 2011 to 9.38% in 2014. Other performance indicators are shown in Table 2.16.

2.8.2 Inter-Agency Connections with Other Providers

Amador Transit

The Calaveras Transit Purple Line connects to Amador Transit in Jackson. Amador Transit is comprised of 7 routes that serve communities within Amador County and one route which connects to Sacramento. Destinations served by Amador Transit include Sutter Creek, Sacramento, Pioneer, Pine Grove, Plymouth, Jackson and Ione.

Tuolumne Transit

The Calaveras Transit Red Line connects to Tuolumne Transit at Columbia College in Sonora. Tuolumne is comprised of 6 routes throughout Tuolumne County with stops in Sonora, Sierra Village, Jamestown, Columbia, Tuolumne and East Sonora.

Amtrak

The closest Amtrak stations to Calaveras County are located in Stockton and in Lodi. The San Joaquins Amtrak Route serves both Lodi and Stockton and connects Sacramento, the San Francisco Bay Area and Bakersfield. Thruway connections further connect the San Joaquins route to Redding, Reno, South Lake Tahoe, Eureka, Las Vegas, Los Angeles, San Diego and many other destinations throughout California. Two

**Table 2.16
Calaveras Transit Performance Indicators, 2011-2016**

Performance Data and indicators	FY 2011	FY 2012	FY 2013	FY 14/15	FY 15/16	% Change	
						FY 2011-2014	Average Annual % Change
Operating Cost	\$836,377	\$920,154	\$906,076	\$1,017,393	\$1,115,674	33.4%	6.7%
Total Passengers	60,080	69,169	66,261	57,495	44,549	-25.9%	-5.2%
Vehicle Service Hours	9,043	8,930	8,739	9,993	11,090	22.6%	4.5%
Vehicle Service Miles	263,345	259,305	263,168	277,822	303,574	15.3%	3.1%
Employee FTE's	12	10	10	10	----	-16.7%	-5.6%
Passenger Fares	\$60,165	\$67,014	\$83,815	\$94,389	\$91,684	52.4%	10.5%
Operating Cost per Passenger	\$13.92	\$13.30	\$13.67	\$17.70	\$25.09	80.2%	16.0%
Operating Cost per Vehicle Service Hour	\$92.49	\$103.04	\$103.68	\$101.81	\$100.60	8.8%	1.8%
Operating Cost per Vehicle Service Mile	\$3.18	\$3.55	\$3.44	\$3.66	\$3.68	15.7%	3.1%
Passengers per Vehicle Service Hour	6.6	7.7	7.6	5.75	4.01	-39.2%	-7.8%
Passengers per Vehicle Service Miles	0.23	0.27	0.25	0.21	0.15	-34.8%	-7.0%
Vehicle Service Hours per Employee	753.6	893.0	873.9	966.8	----	28.3%	9.4%
Average Fare per Passenger	\$1.00	\$0.97	\$1.26	\$1.36	----	36.0%	12.0%
Fare Recovery Ratio	7.19%	7.28%	9.25%	10.50%	9.17%	27.5%	5.5%

Source: annual Fiscal & Compliance Audits; state Controller's Reports

Amtrak stations are located in Stockton – the San Joaquin Street Station and the Downtown/Ace Station. Two trains leave the San Joaquin station daily at 7:36 AM and 6:06 PM, and five trains leave the ACE station daily between 9:25 AM and 7:39 PM. Five northbound trains leave the San Joaquin station daily between 8:33 AM and 8:06 PM. Two northbound trains leave the ACE station, at 10:09 AM and 10:34 PM daily.

Greyhound

The nearest Greyhound station to Calaveras County is located in Lodi. Four busses depart from the Lodi station daily to Los Angeles and San Francisco.

Taxi

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.

2.8.3 Alternate Transportation Providers

ARC of Amador and Calaveras County

The ARC of Amador and Calaveras counties is a vendor of the Valley Mountain Regional Center and provides day programs, recreation and community services for persons who have a developmental disability to assist them with life skills, computer skills, relationship skills, and work opportunities. Door-to-door transportation to the program in San Andreas is provided by Blue Mountain Transit (a private contractor) through contract with Valley Mountain Regional Center.

Area 12 Agency on Aging

The Area 12 Agency on Aging (A12AA) provides many services to individuals over 60 years of age in five counties throughout the Sierra foothill region: Alpine, Amador, Calaveras, Mariposa and Tuolumne Counties. The A12AA provides information to seniors about transit as well as mileage reimbursement through the TripTrans program in Tuolumne County.

Calaveras County Behavioral Health

The County Behavioral Health Department provides approximately 2,400 trips to 650 annually. Six drivers with six vehicles transport County residents to destinations such as DUI classes, the Drop-In Center, group meetings, medication appointments and court. The Behavioral Health Department also facilitates transportation through the distribution of Calaveras Transit passes worth an estimated \$500 annually.

Calaveras County Office of Education

School district buses are provided by the Calaveras County Office of Education (CCOP) for daily school transportation, as well as after school programs, summer school, and ROP trips. In addition, the CCOP provides some transportation to County youth participating in its Mentoring Program.

The Calaveras County Probation Department

The Calaveras County Probation Department issues Calaveras Transit passes on an as-needed basis to juvenile and adult offenders for probation-related appointments and work/after school community service. Transit passes may also be provided for other needs, such as medical appointments.

In addition to purchasing transit passes, the Calaveras County Probation Department has access to two county vehicles to use to transport offenders on probation. It is estimated the Department provides approximately 3,000 trips using County vehicles and distributes transit passes equal to approximately \$12,000 annually.

CalWORKS

CalWORKS is a welfare program provides cash and other services to eligible low-income families in California, including the provision of transit passes. Approximately 300 families in Calaveras County utilize CalWORKS services, about 50% of which are transit-dependent.

Common Ground Senior Services

Common Ground Senior Services is a private non-profit agency founded in 2000 to assist senior citizens and other qualified individuals with independent living. Common Ground provides nutritional needs, information and assistance in addition to transportation. Transportation is provided through Silver Streak Transportation, available to Calaveras County residents who are unable to use the public transit system.

Salvation Army

The Salvation Army provides Calaveras Transit passes for eligible low-income clients to travel to medical appointments and office visits through it TRC Community Services unit.

The Resource Connection (TRC)

The Resource Connection (TRC) is a private, non-profit human service agency that has been serving Calaveras County since 1981. TRC provides a variety of services, including Childcare Resources, Head Start, Calaveras Crisis center, Mother Lode Women Infant Children Program and Community Services/Food Bank. The Head Start and TRC Community Services/Salvation Army provide transportation services.

Valley Mountain Regional Center (VMRC)

The Valley Mountain Regional Center (VMRC) provides services to approximately 400 children and adults with developmental disabilities in Amador, Calaveras, San Joaquin, Stanislaus and Tuolumne Counties. In addition to free diagnosis and assessment, adult day programs, behavioral intervention and employment support, transportation is provided through Blue Mountain Transit for VMRC clients who also participate in ARC and WATCH programs.

Volunteer Center of Calaveras

The Volunteer Center sponsors a volunteer transportation program for Calaveras County residents in need of rides to medical appointments, the grocery store, post office, and other necessary trips. Volunteers are reimbursed for mileage by funds collected through private donations and Volunteer Center general funds. As of 2015, approximately 350 individuals were registered to receive transportation through the program. The Center provides mostly medical-related trips through the use of volunteer drivers using private vehicles. The Center is delivering approximately 1,500 annual trips.

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.

WATCH Resources

WATCH Resources provides supported living and employment training and support for individuals with intellectual disabilities living in Tuolumne or Calaveras County. WATCH has provided transportation services since 1976, and transports clients to medical appointments, work and recreational and social events.

2.9 Aviation

The Calaveras County Airport (also known as Mary Rasmussen Field) is the lone aviation facility in Calaveras County. The airport is a General Aviation airport owned by the County with hangars, tie-downs, fuel, land and sea training and aircraft maintenance services, and is open to the public. Calaveras County Airport is located four miles southeast of San Andreas along SR 49. The airport covers 93 acres and contains one runway that is 3,603 feet in length, 60 feet wide and has two helipads (65 feet by 65 feet). According to the US Department of Transportation Airport Master Records, 32,000 annual aircraft operations occur at Mary Rasmussen Field, or 87 average daily operations.

2.9.1 National Plan Integrated Airport Systems Status

The Calaveras County Airport is designated as a National Plan Integrated Airport Systems (NPIAS) facility under the Federal Aviation Administration (FAA). NPIAS status enables The Calaveras County Airport to apply for federal grants only open to NPIAS airports. The FAA has several grant programs that cover a wide variety of projects, including capital development, routine maintenance facility upgrades and airport planning documents. In addition, the FAA supplies funds to NPIAS aviation facilities on an annual basis for maintenance and upgrades.

2.10 Goods Movement

Most of the goods movement in Calaveras County is constrained to state highways (see Table 2.17 for truck traffic proportions on state highways). State Routes 49 and 4 have the segments with the highest proportion of truck traffic, ranging from 4.0% - 8.4% of the total traffic. Like most rural areas, truck travel is the primary source of roadway degradation for local facilities. Freight movement will continue to drive the need for roadway restoration and maintenance projects.

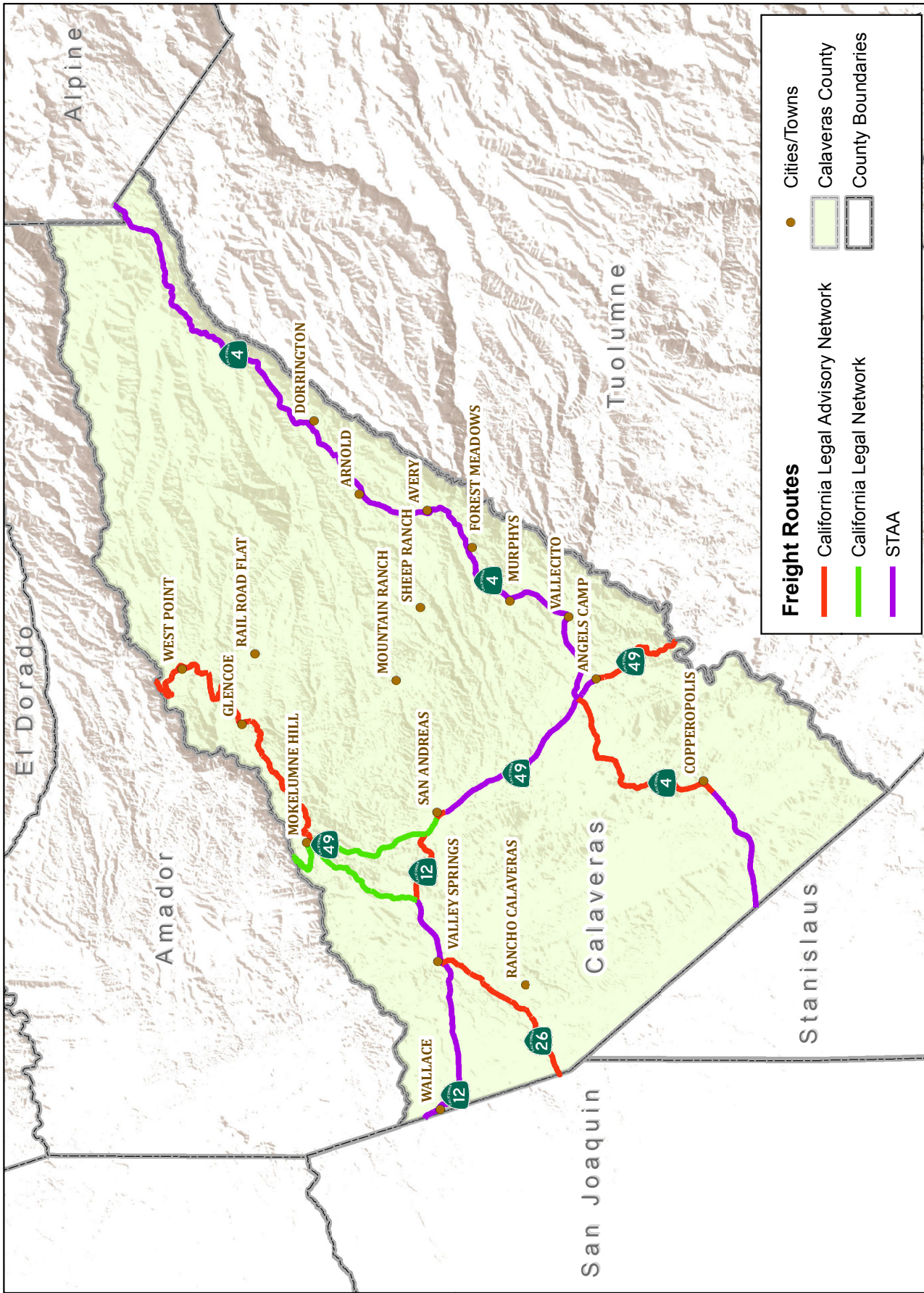
2.10.1 Surface Transportation Assistance Act Routes

The Surface Transportation Assistance Act (STAA) is an act passed by the Federal Highway Administration (FHWA) which requires states to allow larger trucks on the STAA “National Network,” which is comprised of the Interstate system plus the Non-Interstate Federal-aid Primary System. All state highways are assigned route classifications which designate the permissible truck size for the route. In Calaveras County, the STAA route network consists of the following highway segments (see Figure 2.10):

- 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.

2.10.2 California Legal Network

The California Legal Network is the designated name for routes in California that can accommodate California Legal Trucks. A California Legal Truck with a single trailer is allowed a kingpin-to-rear-axle (KPRI) length of 40 feet if 2 axles in the rear, and 38 feet if 1 axle in rear, and a maximum combined length of 65 feet. A California Legal Truck with a double trailer is allowed a 28 feet 6-inch maximum for semi-trailer and trailer with combination length of 75 feet maximum. The California Legal Network in Calaveras County is comprised of SR 49 from the Amador County line to San Andreas and SR 26 from SR 12 to SR 49.



Freight Route Classifications
Figure 2.10

2.11 Active Transportation Projects

2.11.1 Unincorporated County and Communities

Most of the pedestrian and bicycle activity in Calaveras County occurs in the developed areas/communities of the county, including Valley Springs, San Andreas, Copperopolis, Arnold, Murphys, Jenny Lind, Rancho, and other unincorporated population clusters. Subsequently, most of the County’s existing sidewalks and pathways are located in these areas. However, there are numerous places in the County jurisdiction where pedestrian and bike facilities are unsafe or not present. The County has included 170 active transportation projects in the RTP estimated at \$24 million.

2.11.2 Angels Camp

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. This plan includes over 50 active transportation projects in the City of Angels totaling over \$10 million.

2.11.3 Bicycle Facilities

Table 2.17 documents the existing bicycle facilities in the Calaveras County Regional Bicycle, Pedestrian, and SRTS Plan (2015).

Route	Location	Route Type	Jurisdiction
Arnold Rim Trail	Dunbar Rd to Hwy 4	Trail	Arnold/ Avery/ Hathaway Pines
Mountain Ranch Rd. Pathway	Michael St. to Garibaldi St.	Class I	Mountain Ranch
Government Center Bikeway	County Government Offices to Library	Class I	San Andreas
Gold Strike Rd. Pathway	Gold Striks HS to Pixely Ave	Class I	San Andreas
Paloma Rd	Sequoia Ave to Rose St.	Class I	Valley Springs
Whiskey Slide Rd	Mountain Ranch Rd to 200 ft west of El Dorado Creek	Class I	Mountain Ranch
Blagen Rd	Dunbar Rd to D St.	Class I	Arnold
Hwy 4	Bret Harte Dr. to Creekview Dr.	Class I	Murphys
Cowell Creek Pathway	Oak Cr. to Pine Dr.	Class I	Arnold
Daphne St.	Rose St. to Pine St.	Class II	Valley Springs
Hwy 49	Mark Twain Rd to Gold Country Inn	Class II	City of Angels Camp
Oak Cr	Hwy 4 to Dead End	Class II	Arnold
Government Center Dr/Jeff Tuttle Dr	Government Center Rd to End of Jeff Tuttle Dr	Class II	San Andreas
Blagen Rd	Herny St. to Dunbar Rd	Class III	Arnold

2.12 Intermodal and Connectivity Issues

2.12.1 Transit

The Unmet Transit Needs Report 2015/16 summarizes the transit gaps in Calaveras County. The Social Services Transportation Advisory Council (SSTAC) made the following assessment and recommendations for Calaveras Transit, categorized for town/area:

West Point

Calaveras Transit provides two trips per day Monday through Friday to West Point and three daily trips to Rail Road Flat. Given the long travel distances and low ridership, this route has been proven to be cost-ineffective. The SSTAC recommends the CCOG and the County coordinate with other service providers and social and human service agencies to identify alternative transportation options for this area.

Copperopolis

Currently, Calaveras Transit provides two daily trips Monday through Friday from Copperopolis to the transfer center in Angels Camp. Copperopolis is one of the fastest growing communities in the County, and the SSTAC recommends that Calaveras Transit seeks additional or alternative transit options to better serve the growing needs of Copperopolis.

North Angels Camp

A large, underserved 60-unit apartment complex is located in North Angels Camp at Copello Road. Although Calaveras Transit does currently have two stops in Angels Camp, no stop exists at Copello Road. Passengers must flag down the bus at this location, and no pedestrian facilities exist to access SR 49 from the complex. The SSTAC recommends that Calaveras Transit add a stop at or near the apartment complex, complete with a bench and a shelter.

2.12.2 Goods Movement

Limiting conditions on state highways and county roads in Calaveras County prohibit many routes from being used by trucks. As mentioned in the previous “Goods Movements” sections, State Routes’ in Calaveras County designations as an STAA or California Legal route are dis-continuous and incomplete. Geometrics such as sharp turns and narrow roadways prohibit trucks with a KPRA of 38 feet to travel certain routes in the County safely. For these routes, an advisory sign is posted stating the maximum KPRA length that can be safely accommodated. The driver is legally responsible on these routes for unsafe driving behaviors such as crossing the centerline (off-tracking) and driving on shoulders, curbs or sidewalks. There are four route segments with the aforementioned unsafe conditions in Calaveras County, referred to as California Legal Advisory Network segments:

- 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.

2.12.3 Non-Motorized Facilities

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. 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.



3 POLICY ELEMENT

The purpose of the Policy Element of the RTP is to provide guidance to regional transportation decision makers and to promote consistency among Federal, State, regional, and local agencies. As required by the State of California, the Policy Element must:

- Describe transportation issues in the region.
- Identify and quantify regional needs expressed within both short- and long-range planning horizons.
- Maintain internal consistency with the Financial Element and fund estimates.

This chapter provides goals, objectives and policies to assist in setting transportation priorities.

3.1 Goals, Objectives, and Policies

The goals, objectives and policies for each component of the Calaveras County regional transportation system are discussed below. They cover both short-range (0-10 years) and long-range (11-20 years) desired outcomes. They are consistent with the policy direction of the CCOG, the Calaveras County General Plan Circulation Element (1996 and Draft 2017), the California Strategic Highway Safety Plan, and the California Transportation Plan (CTP 2040).

The comprehensive goals, objectives and policies that have been developed for this RTP meet the needs of the region and are consistent with the regional vision and priorities for action. These objectives are intended to guide the development of a transportation system that is balanced, multi-modal and will maintain and improve the quality of life for residents and visitors of Calaveras County.

3.1.1 Regional Goals

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

Policy 1.4: Improve connectivity between key destinations in the community, including residential areas and commercial areas, employment centers, schools and recreation areas.

Policy 1.5: Consider Context Sensitive Solutions when planning and designing roadway and multimodal improvements that fit in with the local context and environment.

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

Policy 1.6: 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 1.7: 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 vehicle miles traveled (VMT) on all County roads and State highways as funding allows.

Policy 1.8: Local jurisdictions should establish traffic study standards and VMT requirements for new development projects such as those stated in the Calaveras Countywide Traffic Circulation Study.

Policy 1.9: 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 1.10: Increase the mode share for public transit through operational improvements and increased bicycle, pedestrian, and park-and-ride facilities.

Policy 1.11: 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 1.12: Keep the trucking industry informed about truck impacts to County facilities and lessen the impact wherever feasible.

Policy 1.13: 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 1.14: Implement transportation projects which increase safety for trucks and promote efficient truck access to commercial, industrial, and agricultural 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.

Policy 2.4: Promote equity for all users and modes by focusing efforts on implementation of Complete Streets projects.

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 Intelligent Transportation Systems (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.

3.1.2 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. Secure funding for implementation of community transportation and corridor studies, specifically projects that have already had some investment.

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.

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.

3.1.3 Local Roadway System

Goal 6: Maintain a local road system to serve the public's need for mobility and access, and enhance local circulation off arterial roadways.

Objective 6A: Accept new roads into the locally maintained road system only when they meet the criteria established by the County or City.

Policy 6.1: 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 6.2: 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 6.3: 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.

3.1.4 Road Maintenance

Goal 7: Maintain local roads in a safe condition.

Objective 7A: Program projects which will help reduce the backlog of “deferred maintenance.”

Policy 7.1: CCOG will coordinate with the County and the City of Angels in identifying maintenance funding such as tax initiatives or street assessments.

Policy 7.2: As much as feasible, provide funding for maintenance projects in a timely manner.

Policy 7.3: Pursue shoulder improvements and traffic calming strategies where appropriate to enhance pedestrian/non-motorized travel.

3.1.5 Public Transit

Goal 8: 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 8A: Monitor monthly management reports and performance measures for Calaveras Transit and adjust service and schedules based on needs and funding availability.

Policy 8.1: Meet any unmet transit needs that are “reasonable to meet” according to the criteria established by the CCOG.

Policy 8.2: Reach and maintain the mandatory 10 percent farebox recovery ratio required by the Transportation Development Act for public transportation in Calaveras County.

Policy 8.3: Reach and maintain the minimum performance standards adopted by the CCOG.

Objective 8B: 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 8.4: Work to develop new sources of public transit funding such as cost sharing arrangements with other jurisdictions served by Calaveras Transit.

Policy 8.5: Continue to direct funds to the Calaveras Transit Bus Shelter Improvement program.

Objective 8C: Incorporate the need to serve the growing elderly population and transit dependent populations in Calaveras County when preparing long-range transportation plans.

Policy 8.6: Include specific analysis of elderly and transit dependent populations in long-range transportation plans.

Objective 8D: Explore partnerships and coordination opportunities with local private or non-profit organizations to meet the needs of transit-dependent populations in locations not adequately or appropriately served by public transit, particularly for the elderly population.

Policy 8.7: Coordinate with senior living facilities, healthcare clinics, Common Ground Senior Services, and other transportation providers and servicers of seniors and people with disabilities, such as those listed in Section 2.8.3 of this Plan.

Objective 8E: Include emerging technology and services to improve mobility in the region.

Policy 8.8: Include rideshare, ride source and other services when preparing long range transportation plans.

3.1.6 Aviation

Goal 9: Enhance, maintain, and improve the Calaveras County Airport in order to support general aviation and disaster emergency services.

Objective 9A: Implement land use, zoning, and development policies of the Airport Special Plan.

Policy 9.1: Prevent new land uses and zoning surrounding the County’s airport (Mary Rasmussen Field) from creating future land use conflicts.

Policy 9.2: Encourage policies that preserve land currently owned by the airport for airport uses.

3.1.7 Goods Movement

Goal 10: 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 10A: Install passing lanes, turnouts, shoulders and other low-cost improvements to minimize adverse traffic impacts from truck traffic.

Objective 10B: Promote efficient utilization of truck transport through transportation and land use decisions, and the designation of appropriate truck routes.

Objective 10C: Keep the trucking industry informed about truck impacts to County and City facilities and lessen the impact wherever possible.

Policy 10.1: Require commercial developments to provide adequate ingress and egress, turning radius, stacking and off-loading areas for truck traffic.

3.1.8 Non-Motorized Travel

Goal 11: Enhance opportunities for safe pedestrian travel on and across state highways.

Objective 11A: Reduce pedestrian/vehicle fatality collisions in accordance with the California Strategic Highway Safety Plan.

Policy 11.1: 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.

Policy 11.2: Complete Streets strategies should be utilized to improve safety between modes. Complete Streets are multimodal improvement projects which insert bicycle, pedestrian and traffic-calming elements onto roadways, such as green painted bike lanes and hardscape. To learn more about Complete Street elements and strategies, visit http://www.dot.ca.gov/transplanning/ocp/docs/Feb10_Draft_CompleteStreetsElementsToolbox.pdf.

Goal 12. Provide an efficient network of bikeways and pedestrian facilities throughout Calaveras County.

Objective 12A: Develop and construct a bikeway system that enhances safety and convenience of bicycling to key destinations.

Policy 12.1: Provide connections to the proposed system from existing and future transit facilities, stations, and terminals within Calaveras County.

Policy 12.2: Integrate bicycle facilities as part of the design and construction of new roadways and, where there is available right of way, upgrades or resurfacing of existing roadways within existing surface width.

Policy 12.3: Coordinate with local agencies and Caltrans regarding the implementation of the proposed system.

Policy 12.4: Provide support facilities, such as bicycle parking and wayfinding at appropriate locations such as employment centers, schools, and commercial centers.

Policy 12.5: Ensure new development accommodates bicycle activity and circulation with bikeways and support facilities.

Policy 12.6: Prioritize projects that close gaps in the existing bicycle network.

Objective 12B: Develop and construct a pedestrian network that enhances safety and convenience of walking to key destinations within the County.

Policy 12.7: Provide safe and convenient access to existing and future transit facilities, stations, and terminals within Calaveras County.

Policy 12.8: Integrate facilities as part of the design and construction of new roadways and, where warranted, upgrades or resurfacing of existing roadways within existing surface width.

Policy 12.9: Coordinate with local agencies regarding the implementation of the proposed facilities improvements.

Policy 12.10: Ensure new development accommodates pedestrian activity and circulation with sidewalks and crossing facilities.

Policy 12.11: Design facilities to meet the needs of all users including older adults, children, and people with disabilities.

Policy 12.12: Prioritize projects that close gaps in the existing pedestrian network.

Goal 13: Improve bicyclist and pedestrian safety.

Objective 13A: Reduce the number of bicycle and pedestrian related injuries and fatalities by 50% from 2010 levels by 2025.

Policy 13.1: Annually review the number of bicycle and pedestrian related collisions to identify and implement ongoing improvements at locations throughout the transportation network.

Objective 13B: Improve conditions at locations with high numbers of bicycle and pedestrian related collisions.

Policy 13.2: Coordinate and work with implementing agencies to implement projects identified in this Plan.

Goal 14: Ensure the timely funding and construction of the bicycle and pedestrian improvements described in this plan.

Objective 14A: Work to fund construction of the bicycle improvements in this plan and maximize the amount of local, state, and federal funding for bikeway facilities that can be received by agencies in Calaveras County.

Policy 14.1: Pursue grant-funding programs for implementing the bikeway network.

Policy 14.2: Partner with local agencies to pursue funding for bicycle projects as stand-alone grant applications or as part of larger transportation improvements.

Objective 14B: Work to fund construction of the pedestrian improvements in this plan.

Policy 14.3: Pursue grant-funding programs for implementing the pedestrian improvements.

Policy 14.4: Partner with COG and other agencies to pursue funding for pedestrian improvement projects as stand-alone grant applications or as part of larger transportation improvements.

Goal 15: Increase the number of commute, recreation, and utilitarian bicycle and walking trips.

Objective 15A: Increase pedestrian and bicycle travel mode share by 50% by 2025.

Policy 15.1: Accommodate the needs of all travelers through a complete streets approach to designing new transportation projects.

Policy 15.2: Consider bicyclist and pedestrian needs in traffic impact fee and capital improvement program updates.

Goal 16: Increase the awareness of bicycling and pedestrian travel through encouragement, education, enforcement and evaluation programs.

Objective 16A: Introduce and promote education, encouragement, and outreach programs for bicycle and pedestrian travel.

Policy 16.1: Partner with and support local groups that promote bicycle and pedestrian travel.

Objective 16B: Support Safe Routes to Schools projects that increase the safety and numbers of students walking and biking to school.

Policy 16.2: Partner with local schools and organizations to support the Safe Routes to School projects recommended in this plan.

Objective 16C: Work to incorporate active transportation into promotion of tourism and economic development.

Policy 16.3: Partner with tourism and economic development agencies to evaluate the existing impact and the potential for increased impact of recreational walking, running and cycling on local economies.

Policy 16.4: Support existing programs and establish new programs to promote Calaveras County and its communities as destinations for active recreation.

3.1.9 Management of the Transportation System

Goal 17: 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 17A: 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 17.1: 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 17.2: Promote off-street parking management strategies in community commercial centers to help decrease congestion while aiding the local economy.

3.1.10 Transportation Funding

Goal 18: Ensure that the allocation of transportation funding dollars maximizes the “highest and best use” for interregional and local projects.

Objective 18A: Identify and allocate funding and resources for building, operating, and maintaining the existing and future transportation system.

Policy 18.1: Use established selection and ranking criteria to recommend projects in the RTP to maximize limited dollars.



ANGELS CAMP

ANGELS CAMP

CALAVERAS
TRANSIT

4 ACTION ELEMENT

This chapter presents a plan to address the needs and issues for each transportation mode, in accordance with the goals, objectives and policies set forth in the Policy Element. It is within the Action Element that projects and programs are prioritized as constrained (0-10 years) and unconstrained (11-20 years) transportation improvements, consistent with the identified needs and policies. The projects are based on the existing conditions, the forecasted future conditions, and the transportation needs as discussed throughout the Existing Conditions and Policy Element and are consistent with the Financial Element.

The Federal Transportation Improvement Program (FTIP) is defined as a constrained four-year prioritized list of regionally significant transportation projects that are proposed for federal, state and local funding and is a prerequisite for federal funding. The Interregional Transportation Improvement Program (ITIP) is a five-year list of projects that is prepared by Caltrans, in consultation with MPOs and RTPAs. Projects included in the interregional program shall be consistent with the Interregional Transportation Strategic Plan and relevant adopted RTPs. The projects outlined in the Action Element of this RTP are consistent with the FTIP and ITIP process.

4.1 Plan Assumptions

In addition to the data discussed above, it is necessary to base the Action Element on a series of planning assumptions, as presented below:

Environmental Conditions - No change is assumed in attainment status for air or water quality affecting transportation projects.

Travel Mode - Travel private automobile will remain an important mode of transportation for residents and visitors. Public transportation will be a vital service for the elderly, low-income and for persons with mobility limitations. Bicycle and pedestrian travel has the potential for strong growth, for both recreational and utility purposes. This assumption is based on current mode shift trends and the approximately \$11 million in active transportation projects identified in the Action Element of the RTP.

Changes in Truck Traffic - The proportion of truck traffic on State highways will increase slightly during the planning period. Truck traffic will grow with respect to population growth, which is projected to slowly increase.

Recreational Travel - Recreation-oriented travel will continue to have major impacts on State highways in the County as will intra-county visitor travel.

Transit Service - Public transportation will continue to be a vital service for the elderly, low-income and for persons with mobility limitations.

Population Growth - Calaveras County will experience steady but slow population growth. According to the Department of Finance, the County is expected to grow by an annual average of 0.9%. Population growth projections of neighboring counties are similar, and will not impact the region significantly.

Planning Requirements - New State and Federal requirements with respect to climate change and GHG emissions will continue to shape the planning process in the future. This RTP is a dynamic document which will be updated as requirements change.

Emergency Preparedness - Transportation and regional coordination will continue to play a vital role in emergency preparedness in Calaveras County.

Climate Change - The region will continue to be affected by climate change. Particularly the impacts of wildland fires and subsequent erosion.

4.2 Project Purpose and Need

The RTP guidelines require that an RTP “provide a clearly defined justification for its transportation projects and programs”. This requirement is often referred to as the Project Intent Statement or the 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. Projects for each type of transportation mode are divided into financially constrained and financially unconstrained improvements. Financially constrained projects are funded over the short range periods (0-10 years) as demonstrated in the Financial Element. The financial constraint is defined as revenues that can reasonably be assumed to be available for identified projects. The unconstrained project list (11-20 years) is considered a longer term list of projects that would provide benefit to the region without a clearly identified and available funding source. It is prudent to develop projects in the long-range project lists in the event funding should become available. For Calaveras County, each project listed in the RTP project lists contributes to system preservation, capacity enhancement, safety, and/or multimodal enhancements. These broad 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.

4.3 RTP Project Lists

Projects in the following sections were derived from various sources, typically from the implementing agency, guiding document and/or community input. The projects are categorized based on mode, but in some instances are broken down further as follows:

- Roadway Projects.
 - o Short Range Roadway Capital Projects (Section 4.3.1 - Table 4.1a).
 - o Illustrative Roadway Capital Projects (Appendix D.1 - Table 4.1b).
- Roadway Maintenance Projects
 - o Short Range Roadway Maintenance Projects (Section 4.3.1 - Table 4.1c).
 - o Illustrative Roadway Maintenance Projects (Appendix D.2 - Table 4.1d).
- Bridge Projects (Section 4.3.2 - Table 4.2).
- Bicycle and Pedestrian Projects.
 - o Short Range Bicycle and Pedestrian Projects (Section 4.3.3 - Table 4.3a).
 - o Illustrative Bicycle and Pedestrian Projects (Appendix D.3 - Table 4.3b).
- Transit Projects (Section 4.3.4 - Table 4.4).
- Aviation Projects (Section 4.3.5 - Table 4.5).
- State Highway Operations and Protection Program (SHOPP) Projects (Section 4.3.6 - Table 4.6).

Each project was reviewed by an implementing agency and cost estimates were updated for projects on the constrained list.

4.3.1 Roadway Projects

Table 4.1a							
Calaveras County Roadway Capital Projects (Short Range 2017-2027)							
Project Number	Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Location	Description	Cost	Construction Year
CO-R001	County	HPP, PLH, RIP, FLAP	Road-Capital	SR 4 Wagon Trail-Phase 1	Realignment	\$ 30,500,000	2025
CO-R002	County	RSTP	Road-Capital	Various Locations	County Roadway Striping and Sign Replacement	\$ 450,000	2016-2019
CO-R003	County	RSTP	Road-Capital	Various Locations	County Roadway Retroreflectivity Upgrade	\$ 180,000	2016-2019
Total						\$ 31,130,000	
City of Angels Roadway Capital Projects (Short Range 2017-2027)							
Project Number	Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Location	Description	Cost	Construction Year
A-R001	City of Angels	CMAQ, RSTP	Road-Capital	SR 49@SR 4/SR 49@Dogtown Rd/SR 49@Clifton/SR 4@Foundry Lane/SR 4@Angels Oaks	Operational Improvements for 5 intersections along SR 4 and 49 in the north and NW portions of the City; examine multi-modal and operational improvements. (PE)	\$ 2,455,361	by 2025
A-R002	City of Angels	CMAQ, RSTP, LTF	Road-Capital	SR 49@ Murphys Grade Rd	Overlay, sidewalks, intersection improvements from City Limits to Demarest	\$ 1,214,686	by 2025
A-R033	City of Angels	RSTP	Road-Capital	Various Locations	City Roadway Retroreflectivity Upgrade	\$ 80,000	by 2025
Total						\$ 3,750,047	
Roadway Projects (Long Range 2027-2037)							
Project Number	Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Location	Description	Cost	Construction Year
CO-R001	County	P, PLH, RIP, FL	Road-Capital	SR 4 Wagon Trail-Phase 2	Realignment	\$ 27,974,847	2027+
Total						\$ 27,974,847	
Roadway Projects-Long Range 2027-2037 (Illustrative)							
Project Number	Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Location	Description	Cost	Construction Year
N/A	County	TBD	Road Capital	Various Projects in Appendix D.1	Roadway Capital	\$ 134,336,640	2027-2037
N/A	City of Angels	TBD	Road Capital	Various Projects in Appendix D.1	Roadway Capital	\$ 62,049,728	2027-2037
Total						\$ 196,386,368	

Table 4.1c Roadway Maintenance Projects-Short Range 2017-2027 (Constrained)							
Project Number	Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Location	Description	Cost	Construction Year
CO-M001	County	HUTA	Road-Maintenance	All Locations in County	Roadway Maintenance	\$ 25,107,509	2017-2027
A-M001	City of Angels	HUTA	Road-Maintenance	All Locations in City	Roadway Maintenance	\$ 972,707	2017-2027
Total						\$ 26,080,216	
Roadway Maintenance Projects-Long Range 2027-2037 (Constrained)							
Project Number	Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Location	Description	Cost	Construction Year
CO-M002	County	HUTA	Road-Maintenance	All Locations in County	Roadway Maintenance	\$ 25,231,377	2027-2037
A-M002	City of Angels	HUTA	Road-Maintenance	All Locations in City	Roadway Maintenance	\$ 973,770	2027-2037
Total						\$ 26,205,147	
Roadway Maintenance Projects-Long Range 2027-2037 (Illustrative)							
Project Number	Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Location	Description	Cost	Construction Year
CO-M003	County	HUTA	Road-Maintenance	All Locations in County	Roadway Maintenance	\$ 122,361,192	2027-2037
A-M003	City of Angels	HUTA	Road-Maintenance	All Locations in City	Roadway Maintenance	\$ 836,372	2027-2037
Total						\$ 123,197,564	

4.3.2 Bridge Projects

Table 4.2 Calaveras County Bridge Projects							
Project Number	Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Location	Description	Cost	Construction Year
CO-BR001	County	HBP	Bridge	Hawver Road Bridge	Replace Low Water Crossing	\$ 4,500,000	2025
CO-BR002	County	RIM & HBP	Bridge	Railroad Flat Road	Bridge Replacement	\$ 2,500,000	2025
CO-BR003	County	HBP	Bridge	Stagecoach Road	Bridge Replacement	\$ 3,000,000	2025
CO-BR004	County	RIM	Bridge	Obyrnes Ferry Road	Bridge Deck Repair	\$ 1,955,875	2025
CO-BR005	County		Bridge	Lime Creek Bridge			
CO-BR006	County		Bridge	Monge Bridge			
CO-BR007	County		Bridge	Calaveritas			
CO-BR008	County		Bridge	Dogtown over French Gulch			
CO-BR009	County		Bridge	Dogtown over San Domingo			
CO-BR010	County		Bridge	Dogtown over Indian Creek #50 Dogtown S.			
CO-BR011	County		Bridge	Whiskey Slide			
CO-BR012	County		Bridge	Schaad			
CO-BR013	County		Bridge	Dogtown over Indian Creek #51 Dogtown N.			
CO-BR014	County		Bridge	Hogan Dam			
CO-BR015	County		Bridge	Singletree			
Total						\$ 11,955,875	
City of Angels Bridge Projects							
Project Number	Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Location	Description	Cost	Construction Year
A-B001	City of Angels	Local	Bridge	SR 4 @ SR 49 South Intersection	Reconstruct bridge (PS&E) and intersection	\$ 4,344,000	by 2025
A-B002	City of Angels	HBP	Bridge	SR 4 @ SR 49 South Intersection	Reconstruct bridge and intersection	\$ 13,970,304	by 2025
Total						\$ 18,314,304	

4.3.3 Bicycle and Pedestrian Projects

Table 4.3a Calaveras County Bike/Ped Projects							
Project Number	Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Location	Description	Cost	Construction Year
CO-BP001	County	ATP	Bike/Ped	Murphys, Michelson SRTS	SRTS improvements along Highway 4 and Pennsylvania Gulch Rd. including high visibility crosswalks, signage, sidewalks	\$ 1,260,150	2025
CO-BP002	County	ATP	Bike/Ped	Murphys, Ironstone Pathway (1.5 miles)	Multi-use path Main St to Ironstone Vineyards	\$ 1,692,000	2025
CO-BP003	County	ATP	Bike/Ped	San Andreas, Calaveras High School	Safe Routes	\$ 1,000,000	2025
CO-BP004	County	ATP	Bike/Ped	Valley Springs, Elementary SRTS	SRTS improvements connecting the school and the historic town center including sidewalks, high visibility crosswalks, signage	\$ 666,375	2025
CO-BP005	County	ATP	Bike/Ped	San Andreas, Lewis Ave/Pope St/San Andreas Elementary Path	Class I multi-use pathway, California St to Mountain Ranch Rd	\$ 541,100	2025
Subtotal						\$ 5,159,625	
City of Angels Bike/Ped Projects							
Project Number	Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Location	Description	Cost	Construction Year
A-BP001	City of Angels	ATP/LTF	Bike/Ped	Angels Creek Path	Class I multi-use pathway, Hwy 49 to Finnegan Lane	\$ 357,300	2025
A-BP002	City of Angels	ATP/LTF	Bike/Ped	Angels Creek Central Reach Alternate Alignment C2	Class I multi-use pathway, Vallecito Rd to Vallecito Rd	\$ -	2025
A-BP003	City of Angels	ATP/LTF	Bike/Ped	Angels Creek Central Reach Preferred Alignment C1	Class I multi-use pathway, Roller Bypass Rd to Finnegan Lane	\$ 591,300	2025
A-BP004	City of Angels	ATP/LTF	Bike	Hwy 49	Share the Road Signage, Brunner Hill Dr to Dog Town Rd	\$ 2,300	2025
A-BP005	City of Angels	ATP/LTF	Bike	Murphys Grade Rd	Share the Road Signage, Roller Bypass Rd to Hwy 49	\$ 2,800	2025
A-BP006	City of Angels	ATP/LTF	Bike/Ped	Angels Creek North Reach Alternate Alignment N2	Class I multi-use pathway, Hwy 4 Bypass Bridge to Vallecito Rd	\$ -	2025
A-BP007	City of Angels	ATP/LTF	Bike/Ped	Angels Creek North Reach Preferred Alignment N1	Class I multi-use pathway, Bret Harte High School to Roller Bypass Rd	\$ 931,900	2025
A-BP008	City of Angels	ATP/LTF	Bike/Ped	Angels Creek South Reach Alternate Alignment S2	Class I multi-use pathway, Preferred South Reach Alignment to Preferred South Reach Alignment	\$ -	2025
A-BP009	City of Angels	ATP/LTF	Bike/Ped	Angels Creek South Reach Preferred Alignment S1.1	Class I multi-use pathway, Finnegan Ln to Main St	\$ 340,600	2025
A-BP010	City of Angels	ATP/LTF	Bike/Ped	Angels Creek South Reach Preferred Alignment S1.2	Class I multi-use pathway, Finnegan Ln to Centennial Ln	\$ 167,100	2025
A-BP011	City of Angels	ATP/LTF	Bike/Ped	Angels Creek South Reach Preferred Alignment S1.3	Class I multi-use pathway, City of Angels City Limit to N/A	\$ 1,240,400	2025
A-BP012	City of Angels	ATP/LTF	Bike/Ped	Angels Creek South Reach Preferred Alignment S1.4	Class I multi-use pathway, Finnegan Ln to Greenhorn Creek Rd	\$ 584,900	2025
A-BP013	City of Angels	ATP/LTF	Pedestrian	S Main St/Hwy 49	Sidewalk, Lee Ln to Bragg St	\$ 630,900	2025
A-BP014	City of Angels	ATP/LTF	Pedestrian	S Main St/Hwy 49	Sidewalk, Dogtown Rd to Demarest St	\$ 645,100	2025
A111	City of Angels	ATP	Other	Tryon Park	construct 260 sq ft public restroom facilities and 5000 sq ft of landscaping	\$ 134,664	by 2025
Subtotal						\$ 5,629,264	
Total						\$ 10,788,889	

4.3.4 Transit Projects

Table 4.4 Calaveras County Transit Projects (2017-2037)						
Project Number	Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Description	Cost	Construction Year
CO-T001	County	Unknown	Transit	Bus Stop Signage	\$ 13,273	2017
CO-T002	County	Unknown	Transit	Safety/Security Equipment	\$ 149,075	2017
CO-T005	County	Unknown	Transit	Class E Large cutaway	\$ 207,169	2019
Total					\$ 369,517	
CO-T007	County	Unknown	Transit	Bus Stop Improvements	\$ 114,129	2025+
CO-T008	County	Unknown	Transit	Class E 35 foot with luggage	\$ 118,450	2025+
CO-T010	County	Unknown	Transit	Class D minivan	\$ 136,938	2025+
Total					\$ 369,517	
Operating Transit Projects (2017-2037)						
Project Number	Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Description	Cost	Construction Year
Transit Op	County	LTF, STA	Transit	Operating Costs from 2016 SRTP p. 7-12 Figure 7-3 Efficiency Scenario	\$ 1,410,796	2017
Transit Op	County	LTF, STA	Transit	Operating Costs from 2016 SRTP p. 7-12 Figure 7-3 Efficiency Scenario	\$ 1,598,428	2018
Transit Op	County	LTF, STA	Transit	Operating Costs from 2016 SRTP p. 7-12 Figure 7-3 Efficiency Scenario	\$ 1,748,884	2019
Transit Op	County	LTF, STA	Transit	Operating Costs from 2016 SRTP p. 7-12 Figure 7-3 Efficiency Scenario	\$ 1,800,682	2020
Transit Op	County	LTF, STA	Transit	Operating Costs estimated beyond 2016 SRTP horizon	\$ 1,398,286	2021
Transit Op	County	LTF, STA	Transit	Operating Costs estimated beyond 2016 SRTP horizon	\$ 1,398,286	2023
Transit Op	County	LTF, STA	Transit	Operating Costs estimated beyond 2016 SRTP horizon	\$ 1,398,286	2024
Transit Op	County	LTF, STA	Transit	Operating Costs estimated beyond 2016 SRTP horizon	\$ 1,398,286	2025
Transit Op	County	LTF, STA	Transit	Operating Costs estimated beyond 2016 SRTP horizon	\$ 1,398,286	2026
Transit Op	County	LTF, STA	Transit	Operating Costs estimated beyond 2016 SRTP horizon	\$ 1,398,296	2027
Total					\$ 14,948,516	
Transit Op	County	LTF, STA	Transit	Operating Costs estimated beyond 2016 SRTP horizon	\$ 14,013,872	2028-2037
Total					\$ 14,013,872	
<i>Source: Short Range Transit Plan Figure 7-7 Updated to County Efficiency Scenario</i>						
Calaveras County Transit Projects (illustrative)						
Project Number	Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Description	Cost	Construction Year
CO-T009	County	Unknown	Transit	Class C Cutaway	\$ 278,534	2025+
CO-T003	County	Unknown	Transit	Bus Shop Equipment	\$ 41,000	2017
CO-T004	County	Unknown	Transit	Office Equipment/computers	\$ 7,000	2017
CO-T006	County	Unknown	Transit	Class D minivan	\$ 102,750	2020
CO-T015	County	Unknown	Transit	Rolling Stock	\$ 216,569	2020
CO-T011	County	Unknown	Transit	AVL Equipment	\$ 69,000	2025+
CO-T012	County	PTMISEA	Transit	Bus AVL System	\$ 2,010,741	2025+
CO-T013	County	PTMISEA	Transit	Bus Stop Improvements Phase 4	\$ 2,393,387	2025+
CO-T014	County	Cal OES	Transit	Bus Stop Lighting	\$ 2,034,255	2025+
CO-T015	County		Transit	Park and Ride Transit Facility (Valley Springs)	\$ -	2025+
Total					\$ 7,153,236	
Operating Transit Projects (illustrative)						
Project Number	Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Description	Cost	Construction Year
Transit Op	County	LTF, STA	Transit	Operating Costs estimated beyond 2016 SRTP horizon	\$ 14,013,872	2028+
Total					\$ 14,013,872	

4.3.5 Aviation Projects

Table 4.5 Calaveras County Airport Projects						
Lead Agency	Funding Source	Project Type? (Road, Bike/Ped, Bridge, Transit)	Location	Description	Cost	Construction Year
County	Airport Fund	Airport	Mary Rasmussen Field	Various Improvement Projects	\$ 100,000	
Total					\$ 100,000	

4.3.6 State Highway Operations and Protection Program (SHOPP)

Table 4.6 Ten-Year SHOPP - Calaveras County						
Ten-Year Plan	Route	Activity Category	Activity Location	Total Project Cost (\$K)	PID Cycle	
2015	'004	Sustainability/ Climate Change	Near White, in the Pines in Big Trees State Park.	\$7,695,000	2010	
2015	'026	Safety	Near Valley Springs, at and near St. Andrews Road.	\$3,596,000	2012	
2015	'026	Safety	In Valley Springs, at Vista Del Lago Drive.	\$3,584,000	2012	
2015	'004		Near Angels Camp. Also in Mariposa county on Routes 49, and 140 at various locations.	\$3,037,000	2012	
2015	'004	Pavement	In and near Copperopolis, from Stanislaus County line to Route 49. Rehabilitate pavement.	\$5,956,000	2014	
2015	'049	Safety	In Calaveras county, at or near Valley Springs to City of Angels	\$2,000,000	2016	
2015	'026	Major Damage	In Calaveras County on State Route 26 at various locations between 5.4 miles West of Ridge Road and Amador County line	\$7,100,000	2016	
2015	'004	Mobility	In Calaveras County on State Route 4 (Pennsylvania Gulch)	\$1,000,000	2018	
2015	'004	Bridge	In Cal - 4, 12, 49 -- PM Var West Branch Cherokee Creek (30 0036), North Fork Calaveras River (30 0007), Calaveritas Creek (30 0016)	\$2,953,000	2018	
2015	'026	Safety	In Calaveras and Amador Counties on Routes 26 and 49 at various locations.	\$1,240,000	2014	
2015	'049	Bridge	30 0016, 0017, 0018	\$5,600,000	2022	
2015	'004	Drainage	In Cal, Sta Counties on SR 4, 12, 26, & 49	\$5,480,000	2022	
2015	'004	Roadside	Chain Control area near Arnold	\$2,130,000	2020	
2015	'004	Mobility	Angels Camp to Camp Connell/San Andreas to Mokelumne Hill	\$2,430,000	2020	
2015	'004	Bridge	In Calaveras County on State Route 4 and State Route 26 at Angels Creek (#30 0008), South Fork Mokelumne River Bridge (#30 0022) and North Fork Mokelumne River Bridge (#30 0049)	\$4,930,000	2018	
Total				\$58,731,000		

4.4 Program-Level Performance Measures

In 2015 the Rural County Task Force (RCTF) completed a study on the use of performance indicators for the 26 Regional Transportation Planning Agencies (RTPA) in California. This study evaluated the current statewide performance monitoring metrics applicability to rural and small urban areas. The study identified and recommended performance measures more appropriate for the unique conditions and resources of rural and small urban places, like Calaveras County. These performance measures are used to help select RTP project priorities and to objectively monitor how well the transportation system is functioning, both now and in the future.

The following criteria was used in selecting performance measures for the Regional Transportation Plan, ensuring feasibility of data collection and monitoring of performance of the transportation investments:

- Performance measures align with California State transportation goals and objectives.
- Performance measures continue to inform current goals and objectives of Calaveras County.
- Performance measures are applicable to Calaveras County as a rural area.
- Performance measures are capable of being linked to specific decisions on transportation investments.
- Performance measures do not impose substantial resource requirements on Calaveras County.
- Performance measures can be normalized to provide equitable comparisons to urban regions.

4.5 Performance Measures

4.5.1 Performance Measure 1 - Transportation Systems Investment

This performance measure monitors the condition of the roadway in Calaveras County, which can be used in deciding transportation system investment. Distressed lane miles should be monitored tri-annually. This performance measure has a high level of accuracy and can be used indirectly for benefit/cost analysis by estimating the costs of bringing all roadways up to a minimum acceptable condition.

Desired outcome and RTP/State Goals:

- Safety.
- System Preservation.
- Accessibility.
- Productivity.
- Return on Investment.
- Reliability.
- RTP Goals: 1, 2, 5.

4.5.2 Performance Measure 2 - Preservation/Service Fuel Use/Travel

Similar to Performance Measure 5, this performance measure monitors the condition of the roadway in Calaveras County through pavement condition. Pavement condition should be monitored every 2 years. This performance measure should have a high level of accuracy which can be indirectly used in estimating the costs of bringing all roadways up to a minimum acceptable condition.

Desired outcome and RTP/ State Goals:

- Safety.

- System Preservation.
- Accessibility.
- Reliability.
- Productivity.
- Return on Investment.

4.5.3 Performance Measure 3 - Safety

This performance measure monitors safety through the total accident count, and should be monitored annually. To access this data, staff may be required to access secondary data sources. The data is reasonably accurate and can be used directly for benefit/cost analysis. The Statewide Integrated Traffic Records System (SWITRS), a database that collects and processes data gathered from collision scenes, can be used to monitor the number of fatal and injury collisions by location to see if added improvements are needed. For Counties that do not track VMT on County roads, a comparison with the collision rate (collisions per 1,000,000 VMT) for Caltrans District 10 and the State on similar facilities does not exist. However, if the County does track the number of collisions on local roads, these can be monitored to identify safety improvements.

Desired outcome and RTP/State Goals:

- Establish baseline values for the number of fatal collisions and injuries per AADT on select roadways over the past three years.
- Monitor the number, location, and severity of collisions. Recommend improvements to reduce incidence and severity.
- Work with Caltrans to reduce the number of collisions on Calaveras County State highways.
- Completion of projects identified in TCRs and RTP.
- RTP goals: 1, 6, 8.

4.5.4 Performance Measure 4 - Mode Share/Split

This performance measure monitors transportation mode and mode share to understand how State and County roads function based on modes used. The data is reported as a trend over time from 2000 and does not require a large share of additional resources for monitoring. While data is reasonably accurate at the County level, it may have reduced accuracy in smaller counties. This performance measure cannot be used as a benefit/cost analysis.

Desired outcome and RTP/State Goals:

- Multimodal.
- Efficiency.
- GHG reduction.
- RTP Goals: 3, 4, 5, 6, 7, 8, 9, 10.

4.5.5 Performance Measure 5 - Transit

This performance measure monitors the cost-effectiveness of transit in Calaveras County. This performance measure should be monitored annually. The RTP will emphasize projects and programs that maintain the Transportation Development Act (TDA) required fare box ratio of 10 percent or higher.

Desired outcome and RTP/State Goals:

- Increase productivity.
- Increase efficiency.
- Reduce the cost of operation/passenger.
- RTP Goals: 3, 7.

4.5.6 Performance Measure 6 - Congestion/Delay/Vehicle Miles Traveled

This performance measure monitors how well State and County Roads are functioning based on peak volume/capacity and vehicle miles travelled (VMT). The data is reported annually and as a trend over time from the year 2000. Monitoring this performance measure requires minimal resources, as data regarding the State Highway system is readily available; however, broader coverage may require an effort by County and localities to conduct periodic traffic counts. Not all locations are reported annually in Caltrans Vehicle Reports; thus, there is the chance that individual locations may have out-of-date data. This performance measure is reasonably accurate for most locations and may be used in a cost/benefit analysis with additional calculations (travel time/delay as functions of V/C).

Desired outcome and RTP/State Goals:

- Measure overall vehicle activity and use of the roadway network.
- Maintenance and system preservation.
- Increase safety.
- Increase health based pollutant reduction, increase GHG reduction.
- RTP Goals: 1, 2, 5.

4.5.7 Performance Measure 7 - Land Use

This performance measure monitors the efficiency of land use and is reported over time since 2000. Tourism is very important to the County in order to maintain and improve economic conditions, which is why monitoring land use efficiency is important. Accessing this data requires minimal resource requirements and should be monitored every 2 years, and has a high level of accuracy. This kind of data is not used for benefit/ cost analysis.

Desired outcome and RTP/State Goals:

- Land use efficiency.
- Coordinate with Caltrans on State highway projects to maintain State highways at acceptable maintenance levels and reduce lane miles needing rehabilitation.
- Recommend RTP projects to maintain roads at or above the minimum acceptable condition as set by the City of Angels and/or County of Calaveras.
- RTP Goals: 9, 10.

4.6 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 rural areas such as 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 and along the interstate. Long-range TSM

considerations can include:

- Signing and striping modifications.
- Parking restrictions.
- Installing or modifying signals to provide alternate circulation routes for residents.
- Re-examining speed zones on certain streets.

These types of actions will remain part of the RTP and General Plan planning process for the next 20 years.

4.7 Intelligent Transportation Systems (ITS)

ITS, as defined in 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 is a priority for the U.S. Department of Transportation. 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. ITS includes technology improvements which enhance the safety and reliability of roadways. Common examples include Highway Advisory Radio (HAR) and Changeable Message Signs (CMS) which provide travelers roadway closure information on detours, road closures and weather conditions. CMS notifies travelers of seasonal roadway closures. The addition of HAR to Calaveras County regional transportation system would increase traveler reliability. Currently, Caltrans implements CMS along the State Highway System in Calaveras County.

5 FINANCIAL ELEMENT

New legislation in California, Senate Bill 1 (SB1) (2017), establishes new transportation funding programs for the state totaling around \$2 billion annually. SB 1, also known as the Road Repair and Accountability Act of 2017, provides funding for new transportation infrastructure, increases responsibility for the California Transportation Commission (CTC), and created the following programs:

- Local Streets & Roads (approximately \$1.5B per year).
- Solutions for Congested Corridors Program (\$250M per year).
- Trade Corridor Enhancement Account (\$300M per year).
- Traffic Congestion Relief Program (TCRP).

The new funding programs created by SB1 are stable and permanent sources of funding sourced through the new state gas tax rate. The funding allocated by the SB1 programs will be available for transportation improvements and maintenance projects that will benefit Calaveras County and the state of California in future years.

The Financial Element is fundamental to the development and implementation of the RTP. This chapter identifies the current and anticipated revenue resources available to fund the planned transportation investments that are described in the Action Element, as needed to address the goals, policies and objectives presented in the Policy Element. The intent is to define realistic funding constraints and opportunities. This chapter presents a discussion of future regional transportation revenues and a comparison of anticipated revenues with proposed projects.

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

5.1 Projected Revenues

Projecting revenues and expenditures over a 20-year horizon is difficult because funding levels can dramatically fluctuate or be eliminated by legislation and policy changes. In addition, many projects are eligible for discretionary funds, which are nearly impossible to forecast, because they are allocated on a recurring competitive basis. Despite these variables, roadway, bridge, bicycle and pedestrian, aviation and transit revenues were forecasted over the next 20 years by using a variety of methods defined in the footnotes of Table 5.1a.

Table 5.1a provides a summary of the projected federal, state, and local transportation funding sources and programs available to the Calaveras region for transportation facility improvements over the next 20 years. To project funding for the long range (11-20 years) we use the following assumptions:

- Revenues that have been historically constant and reliable are reflected through 2037.
- State revenues are expected to be available at historical funding levels.
- Non-auto revenues are estimated based on historical levels.

5.2 Projected Revenues and Costs

5.2.1 Revenue Summary by Funding Program

Table 5.1a Projected Revenues from Federal, State, and Local Sources for Calaveras County			
Revenue Category	Short-Range (1-10 yr)	Long-Range (11-20 yr)	Total
Federal Funding Resources			
Highway Bridge Program (HBP)(4)	\$ 30,270,179	\$ 30,270,179	\$ 60,540,359
Highway Safety Improvement Program (HSIP)(5)	\$ 3,750,000	\$ 2,500,000	\$ 6,250,000
Highway Users Tax Account (HUTA)-County(6)	\$ 25,107,509	\$ 25,231,377	\$ 50,338,886
Highway Users Tax Account (HUTA)-City(6)	\$ 972,707	\$ 973,770	\$ 1,946,477
Regional Surface Transportation Program (RSTP)(7)	\$ 6,698,759	\$ 6,269,225	\$ 12,967,984
Congestion Management Air Quality (CMAQ)(3)	\$ 3,901,200	\$ 3,901,200	\$ 7,802,400
Federal Transit Administration 5311, 5311 (f)(FTA)	\$ 3,407,487	\$ 3,382,306	\$ 6,789,793
Secure Rural Schools(8)	\$ 1,645,255	\$ 1,645,255	\$ 3,290,510
State Funding Resources			
Active Transportation Program (ATP)(1)	\$ 10,621,744	\$ 2,500,000	\$ 13,121,744
Annual Distribution for Aviation(2)	\$ 100,000	\$ 100,000	\$ 200,000
Low Carbon Transit Operations Program (LCTOP)	\$ 153,437	\$ 153,437	\$ 306,874
State Highway Operation Protection Program (SHOPP)(9)	\$ 58,731,000	\$ 58,731,000	\$ 117,462,000
State Transit Assistance (STA)(12)	\$ 1,943,966	\$ 1,989,223	\$ 3,933,189
State Transportation Improvement Program (STIP)(10)	\$ 17,576,500	\$ 12,242,500	\$ 29,819,000
Local Funding Resources			
LTF (Bike / Ped)(13)	\$ 167,145	\$ 164,104	\$ 331,249
LTF (Operating Reserve for Transit)(14)	\$ 34,198	\$ 35,280	\$ 69,478
LTF (TDA Admin)(13)	\$ 1,731,022	\$ 1,732,620	\$ 3,463,642
LTF (Transit)(13)	\$ 6,569,096	\$ 5,670,640	\$ 12,239,736
LTF (Streets and Roads)(13)	\$ 1,308,333	\$ 1,416,667	\$ 2,725,000
Transit Fare Box Revenue(11)	\$ 1,262,747	\$ 1,203,802	\$ 2,466,550
Transit Advertising Revenue	\$ 216,080	\$ 216,080	\$ 432,160
Total Transportation Revenue	\$ 176,168,365	\$ 160,328,665	\$ 336,497,030
Footnotes			
(1) ATP based on expected applications submitted during the period			
(2) Based on \$10K/airport.			
(3) Based on 3/1/16 estimated apportionments 2016-2020, then averaged through 2036.			
(4) Based on project lists and estimated future projects.			
(5) Based on project lists and estimated future projects.			
(6) Based on historic apportionments and estimates (2103, 2104, 2105, 2106).			
(7) Based on state estimates.			
(8) Based on estimated 2011-14 apportionments Title I,II,III and divided by 2. 1/2 to schools, 1/2 to roads.			
(9) Based on SHOPP program provided by Caltrans 16/17			
(10) Based on Previous 2 STIP cycles with capacity (12 & 14) as well as current programmed STIP			
(11) Based on 2011-2015 Transit Reports			
(12) STA Based on State Controllers FY apportionments from 2013-2016			
(13) Based on P7-14 Figure 7-4 Budget Trend Scenario 2016 SRTP and previous apportionments			
(14) Based on P7-14 2016 SRTP FY 15/16-19/20			

5.2.2 Revenue Summary by Jurisdiction

Table 5.1b Projected Revenues from Federal, State, and Local Sources for Calaveras County			
Revenue Category	Short-Range (1-10 yr)	Long-Range (11-20 yr)	Total
Total Federal Resources	\$ 75,753,096	\$ 74,173,312	\$ 149,926,408
Total State Resources	\$ 89,493,617	\$ 76,083,130	\$ 165,576,747
Total Local Resources	\$ 11,288,621	\$ 10,439,193	\$ 21,727,815
Total Transportation Revenue	\$ 176,535,335	\$ 160,695,635	\$ 337,230,970
Footnotes			
(1) ATP based on expected applications submitted during the period			
(2) Based on \$10K/airport.			
(3) Based on 3/1/16 estimated apportionments 2016-2020, then averaged through 2036.			
(4) Based on project lists and estimated future projects.			
(5) Based on project lists and estimated future projects.			
(6) Based on historic apportionments and estimates (2103, 2104, 2105, 2106).			
(7) Based on state estimates.			
(8) Based on estimated 2011-14 apportionments Title I,II,III and divided by 2. 1/2 to schools, 1/2 to roads.			
(9) Based on SHOPP program provided by Caltrans 16/17			
(10) Based on Previous 2 STIP cycles with capacity (12 & 14) as well as current programmed STIP			
(11) Based on 2011-2015 Transit Reports			
(12) STA Based on State Controllers FY apportionments from 2013-2016			
(13) Based on P7-14 Figure 7-4 Budget Trend Scenario 2016 SRTP and previous apportionments			
(14) Based on P7-14 2016 SRTP FY 15/16-19/20			

5.2.3 Revenue vs. Cost by Mode

Tables 5.2a and 5.2b contain a summary of the RTP improvement costs identified for each modal category in the RTP. Table 5.2b represents areas where project costs are greater than expected revenue. A total of approximately \$337 million has been proposed for roadway, bridge, transit, bike/pedestrian and aviation projects for the next 20 year RTP period. This only includes projects with cost estimates. In addition to the projects programmed over the next 20 years in Table 5.2a, Table 5.2b contains a list of “illustrative” projects, an unprogrammed list with a funding shortfall of approximately \$363 million. Additional funding sources, like grants and appropriations, may be awarded to the region to decrease this funding shortfall.

Table 5.2a Revenue vs Costs by Mode								
Mode	Funding Source	Projected Revenue by Mode		Projected Cost by Mode		Revenue Minus Costs by Mode		
		Short Range	Long Range	Short Range	Long Range*	Short Range	Long Range	
Roadway Capital	HSIP, RSTP, CMAQ, SRS, STIP, LTF S&R	\$ 34,880,047	\$ 27,974,847	\$ 34,880,047	\$ 27,974,847	\$0	\$0	
Roadway-State	SHOPP	\$ 58,731,000	\$ 58,731,000	\$ 58,731,000	\$ 58,731,000	\$0	\$0	
Roadway Maintenance-County	HUTA	\$ 25,107,509	\$ 25,231,377	\$ 25,107,509	\$ 25,231,377	\$0	\$0	
Roadway Maintenance-Angels	HUTA	\$ 972,707	\$ 973,770	\$ 972,707	\$ 973,770	\$0	\$0	
Bridge	HBP	\$ 30,270,179	\$ 30,270,179	\$ 30,270,179	\$ 30,270,179	\$0	\$0	
Transit Operating	FTA,STA,LTF,FAREBOX	\$ 14,948,516	\$ 14,013,872	\$ 14,948,516	\$ 14,013,872	\$0	\$0	
Transit Capital	LCTOP, Advertising	\$ 369,517	\$ 369,517	\$ 369,517	\$ 369,517	\$0	\$0	
Bicycle and Pedestrian	ATP, LTF 2%	\$ 10,788,889	\$ 2,664,104	\$ 10,788,889	\$ 2,664,104	\$0	\$0	
Aviation	AIP	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$0	\$0	
Total		\$ 176,168,365	\$ 160,328,665	\$ 176,168,365	\$ 160,328,666	\$0	\$0	

County and City of Angels impact fees show constraint by utilizing projects from main project list.
 ATP-Estimate which projects will bring forth ATP applications.
 HSIP-Estimate which projects will pursue HSIP applications.

Table 5.2b Illustrative Projects and Unfunded Need		
Mode	Funding Source	Illustrative Project
Roadway Capital	HSIP, RSTP, CMAQ, SRS, STIP, LTF S&R	\$ 196,386,368
Roadway-State	SHOPP	N/A
Roadway Maintenance-County	HUTA	\$ 122,361,192
Roadway Maintenance-Angels	HUTA	\$ 836,372
Bridge	HBP	N/A
Transit Operating	FTA,STA,LTF,FAREBOX	\$ 14,013,872
Transit Capital	LCTOP, Advertising	\$ 7,153,236
Bicycle and Pedestrian	ATP, LTF 2%	\$ 23,176,029
Aviation	AIP	N/A
Total		\$ 363,927,069

Long range costs reflect some projects without current cost estimates.

5.2.4 Roadway Cost Summary

Table 5.3 Comparison of Roadway Costs to Expected Revenue						
	Projected Revenue		Projected Costs		Revenue Minus Cost	
	Short Range	Long Range	Short Range	Long Range	Short Range	Long Range
Roadway Comparison	\$ 60,960,264	\$ 54,179,994	\$ 60,960,263	\$ 54,179,994	\$ 0	\$ 0

Includes roadway capital and maintenance.

5.2.5 Bridge Cost Summary

Table 5.4 Comparison of Bridge Costs to Expected Revenue						
	Projected Revenue		Projected Costs		Revenue Minus Cost	
	Short Range	Long Range	Short Range	Long Range	Short Range	Long Range
Bridge Comparison	\$ 30,270,179	\$ 30,270,179	\$ 30,270,179	\$ 30,270,179	\$ -	\$ 0

5.2.6 Bicycle/Pedestrian Cost Summary

Table 5.5 Comparison of Bikeway and Pedestrian Costs to Expected Revenue						
	Projected Revenue		Projected Costs		Revenue Minus Cost	
	Short Range	Long Range	Short Range	Long Range	Short Range	Long Range
Bicycle and Pedestrian	\$ 10,788,889	\$ 2,664,104	\$ 10,788,889	\$ 2,664,104	\$ (0)	\$ -

5.2.7 Transit Cost Summary

Table 5.6 Comparison of Transit Costs to Expected Revenue						
	Projected Revenue by Mode		Projected Costs by Mode		Revenue Minus Cost	
	Short Range	Long Range	Short Range	Long Range	Short Range	Long Range
Transit Operating & Capital	\$ 15,685,003	\$ 14,750,359	\$ 15,685,003	\$ 14,750,359	\$ 0	\$ 0

5.2.8 Aviation Cost Summary

Aviation funding for the County is programmed through the Airport Improvement Program in the amount of \$10,000 annually, or \$200,000 over the next twenty years.

Table 5.7 Comparison of Aviation Costs to Expected Revenue						
	Projected Revenue		Projected Costs		Revenue Minus Cost	
	Short Range	Long Range	Short Range	Long Range	Short Range	Long Range
Airport Capital & Maintenance	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ -	\$ -