



CALAVERAS COUNCIL
of GOVERNMENTS



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CALAVERAS COUNTY REGIONAL TRANSPORTATION PLAN 2021 - 2041

EXISTING CONDITIONS MEMO



Prepared by LSC Transportation Consultants, Inc

Calaveras County
Regional Transportation Plan Update
2021 - 2041
Existing Conditions Memo

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

The Calaveras County 2021 RTP provides a coordinated 20-year vision of policies and regionally significant transportation improvements needed to efficiently move goods and people in the Calaveras County region. The purpose of the RTP is to provide a vision of transportation services and facilities, supported by appropriate goals, for 10- and 20-year planning horizons. The RTP documents the policy direction, actions, and funding strategies designed to maintain and improve the regional transportation system.

This plan was prepared during the COVID-19 pandemic. During this time, health safety concerns led to restrictions on businesses and travel that have effected regional transportation. Public transit has been particularly impacted by COVID-19 with a large reduction in public transit usage. Vehicle trip patterns and volumes have also changed. A greater proportion of residents work from home or are unable to work. Goods movement traffic has slowly been increasing due to internet commerce but has likely seen a boost since pandemic stay at home orders.

This Technical Memorandum is the first in a series of interim documents that will ultimately result in a final plan document. This specific document presents and reviews the setting for transportation services (including demographic factors), current and recent plans and the recent operating history of the public transit service in Calaveras County.

PLAN DEVELOPMENT REQUIREMENTS AND PROCESS

State Planning Requirements

State regional transportation planning requirements have evolved over the years. A brief history of the laws that have shaped the RTP process and requirements is presented below:

- The Transportation Development Act of 1971 (SB 325) resulted in the formation of the CCOG as the RTPA to administer and allocate funds provided by the Act.
- Assembly Bill 69, enacted in 1972, created Caltrans and established requirements for preparation and administration of State and Regional Transportation Plans. Under this law, each RTPA is required to prepare and adopt an RTP with coordinated and balanced transportation systems consistent with regional needs and goals;
- In 1997, the Transportation Funding Act (SB 45) mandated major reforms impacting many areas of transportation planning, funding, and development. This sweeping legislation overhauled the

State Transportation Improvement Program (STIP), providing for greater “regional choice,” with 75 percent of the program’s funds to be divided by formula among the regions. Periodically, each RTPA selects projects to be funded from its STIP share and lists them in its Regional

- Transportation Improvement Program (RTIP). Every RTIP adopted by a local agency must be consistent with its RTP; and
- California Government Code 14522 requires that the CTC develop RTP Guidelines to facilitate the preparation, consistency, and utilization of RTPs throughout the state. The RTP guidelines were most recently updated in 2017.

The CCOG is responsible for the preparation of Calaveras County’s RTP. CCOG must ensure that all the requirements of the RTP process are met. The CCOG then prepares a draft document that includes all the required elements and solicits public comment from a wide variety of groups, including the general public, local Native American Tribes, natural resource agencies, private transportation providers, transportation advocacy groups and adjacent county RTPAs. Appropriate environmental documentation (in conformance with the CEQA) is also prepared and distributed to the groups noted above. The comments solicited are responded to and/or included in the final document, as appropriate. The CCOG then adopts the RTP and environmental documentation in accordance with state and federal requirements.

After adoption, the CCOG will be responsive to changing conditions throughout the county on an ongoing basis. As new or redefined projects are needed, the action and financial sections will be amended. The CCOG considers funding only for those projects in the RTP that have been fully reviewed by all concerned agencies.

Report Organization

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

- [The Modal Discussion](#) addresses the needs and future vision for each transportation mode separately. In Calaveras County this includes state highways, local streets and roads, public transit, active transportation facilities, goods movement and aviation facilities;
- [The Policy Element](#) describes the transportation issues in the region, identifies and quantifies regional needs expressed within both a short- and long-range framework, and maintains internal consistency with the financial element fund estimates;
- [The Action Element](#) identifies plans to address the needs and issues for each transportation mode in accordance with the goals, objectives, and policies set forth in the policy element; and
- [The Financial Element](#) identifies the current and anticipated revenue sources and financing techniques available to fund the planned transportation investments described in the action element. The intent is to define realistic financing constraints and opportunities.

PARTICIPATION AND CONSULTATION PROCESS

The planning of the regional transportation system is accomplished through the coordination of various governmental agencies, advisory committees, and public input. The organizational structure and composition of CCOG and its advisory groups are described below.

- **CCOG** was formed in 1998 under a Joint Powers Agreement between the City and County to serve as the Regional Transportation Planning Agency (RTPA). CCOG staff includes an Executive Director, Administrative Services Officer, Transportation Planner and Administrative Assistant. The governing board (“Council”) is made up seven members including three citizen members, two City of Angels (Angels Camp) City Council members, and two County Board of Supervisors. The current Council Chair is one of the board of supervisors, and the Vice Chair is currently served by a City Council member. In addition, there is a county, city, and citizen alternate.
- **Executive Management Group (EMG)** is comprised of the CCOG Chair, Vice Chair, CCOG Executive Director, County Chief Administrative Officer, and City Administrator. The EMG reviews items related to budget, policy, personnel and other matters related to the administration and management of the organization prior to presentation of the CCOG Board for approval.
- **The Technical Advisory Committee (TAC)** consists of city and county engineering and planning department technical staff, a public works representative, county social services representative, and the Caltrans District 10 Planning Division Chief. This committee has not been active recently and is only summoned on an as needed basis.
- **The Social Services Advisory Council (SSTAC)** advises the CCOG on matters pertaining to the transit needs of transit dependent and transit disadvantaged persons. The input and recommendations of the SSTAC shall be considered in the CCOG’s annual “Unmet Transit Needs” hearing and findings process. The SSTAC is comprised of a myriad of representatives, as directed by Section 99238 of the California Public Utilities Code, of potentially transit dependent segments of the community (e.g., senior citizens, persons with disabilities, persons of limited means), Caltrans, and transit operators. SSTAC members are appointed by the CCOG.
- **Caltrans** is responsible for the design, construction, maintenance, and operation of the State Highway System, and that portion of the Interstate Highway System within California. Enacted in 1972, Assembly Bill 69 defines the basic framework for Caltrans. Headquartered in Sacramento, Caltrans has 12 district offices throughout the state. Calaveras County is in District 10, with an office in Stockton. Different District 10 staff members serve as liaisons to the CCOG, depending upon the activity or project.

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

- Tribal Entities
- Adjacent County RTPAs
- Local, State, and Federal Resource Agencies
- Northern Sierra Air Quality Management District
- Truck Traffic Generators
- Public Transit Operators
- Private Transportation Operators
- Human Service Agencies
- Transportation Related Advocacy Groups

Appendix A presents all agencies/stakeholders contacted while Appendix B presents copies of correspondence. Table 1 below lists specific events in the participation/consultation process pertaining to this RTP.

TABLE 1: Participation Process During RTP Development		
Participant	Activity	Date
Steering Committee Meeting	Project Kick-off Meeting	3/5/2020
Adjacent RTPAs	Sent notifications emails requesting input.	May and August 2020
Native American Heritage Commission	Sent notifications emails requesting Tribal Contact list.	5/20/2020
Tribal Governments	Sent notifications emails requesting input.	May and August 2020
Natural Resource Agencies	Sent notifications emails requesting input.	May and August 2020
Public Outreach	Online Survey	August 2020

Adjacent County Regional Transportation Planning Agencies

Correspondence was sent to the neighboring RTPAs which share transportation facilities with Calaveras County. This correspondence notified the RTPAs of the Calaveras County RTP preparation and requested written or verbal responses to a series of six questions. All adjacent RTPAs were contacted via e-mail. The following summarizes the response from Tuolumne County. The counties of Amador, Alpine, San Joaquin and Stanislaus were also contacted via email and did not have anything to contribute to the 2020 Calaveras County RTP process.

[Tuolumne County Transportation Council \(TCTC\)](#) – TCTC staff indicated that Tuolumne County and Calaveras County currently work in partnership to maintain various highways and bridges throughout connecting portions of the counties. When asked how TCTC would characterize transportation conditions, TCTC staff indicated that the O’Byrnes Ferry Bridge crossing Lake Tulloch would potentially need repair or replacement in the future. TCTC staff also mentioned a continued need for more multimodal roadways throughout both counties. TCTC would like the Multi-County Bicycle Tourism Plan, Human Services and

Short Range Transit Plans, and the Regional Zero Emissions Plan to be considered in this RTP. Lastly, major economic and demographic considerations for Calaveras County to include in this RTP are the following:

- Commuting patterns of those living in Calaveras County and working in Tuolumne County
- Population of students living in Calaveras County and receiving education at Columbia College
- Tourism along the SR 49 corridor between both counties
- The Angels Camp UPS distribution center is a major provider of package delivery for the region
- Sonora is a major destination for Calaveras residents along the Highway 4 corridor for shopping and medical care

Tribal Governments

To include in the RTP process those Tribal Governments that have sacred lands and resources within Calaveras County, the Native American Heritage Commission (NAHC) was contacted to obtain the “SB 18 Consultation List.” The study team contacted the following tribal entities, as suggested by the NAHC and Calaveras County:

- Calaveras Band of Mi-Wuk
- Lone Band of Miwok
- Chicken Ranch Rancheria of Me-Wuk Indians

These entities were contacted with a notification letter that defined the RTP, referenced an internet link to the 2017 RTP, requested their input in the RTP process and requested they make contact for a meeting or discussion of tribal transportation issues. The letter served as a request for consultation as per AB 52. To date, none of the tribal governments have provided input. In August, a link to the community survey was emailed directed to the Tribes.

Environmental Agency Consultation

The 2017 RTP Guidelines state that *“the RTP shall reflect consultation with resource and permit agencies to ensure early coordination with environmental resource protection and management plans.”* The following natural resource agencies were contacted and input and relevant resource maps or plans were requested and reviewed. Comments pertinent to this RTP received to date are summarized below.

- Central Valley District, CA Dept of Parks and Recreation
- Calaveras Big Trees State Park
- Water Quality Control Board
- Stanislaus National Forest - Calaveras District
- Caltrans
- Sierra Nevada Conservancy
- California Department of Fish and Wildlife: North Central Region 2
- Calaveras County Air Pollution Control District

Federal Public Land Agencies

A large portion of Calaveras County includes federal public lands such as the National Forest Service and Bureau of Reclamation. Several popular year-round recreation sites are located within Calaveras County, including the New Hogan Lake and Acorn Recreation Area near SR 26 and Valley Springs, New Melones Lake along SR 49, and Calaveras Big Trees in the Stanislaus National Forest along SR 4. The Calaveras District office of Stanislaus National Forest was contacted but did not provide any input.

The Stanislaus National Forest 2017 Forest Plan Direction was reviewed as part of this process. Goals identified in the plan are consistent with the RTP.

In 2015, Stanislaus National Forest updated their Travel Management Rule which provides guidance on over the snow travel through the national forest. Forest Service roadway maintenance is particularly important for timber sales and forest fuels reductions projects.

The US Forest Service has developed a *Sierra Nevada Forest Plan (SNFP)* to ensure that Forest Service plans, programs, and activities will not have a significant impact on the environment. The 2001 SNFP and 2013 Supplemental Final Environmental Impact Statement reviews several “Forest Service Sensitive Species” which should be provided consideration so that these species will not become endangered or threatened. The document performs a Biological Evaluation of each sensitive species including the species’ habitat and risk factors which can have a negative impact on the survival of the species. The following Forest Service Sensitive species may be found in the eastern portions of Calaveras County: Wolverine, Snowshoe Hare, California Spotted Owl, Northern Goshawk, and the Yosemite Toad. Specific transportation related environmental documents will evaluate the impact on Forest Service Sensitive Species.

Central Valley Water Quality Control Boards

The Central Valley Water Quality Control Board was contacted for input and the current 2018 Basin Plan was reviewed. The Central Valley Water Quality Control Board did not provide any input during this RTP outreach period.

California Department of Fish and Wildlife

As part of the consultation process, the California Department of Fish and Wildlife was contacted for input. To date, no input has been provided, however, the *California State Wildlife Action Plan* was reviewed, as discussed below.

As a requirement for receiving funding under the State Wildlife Grants Program, states must develop a State Wildlife Action Plan. In California, the California Wildlife Conservation Legacy for Californians was developed in 2015. This document along with the Transportation Planning Companion Plan was reviewed as part of the RTP process. There are three conservation challenges listed in the document which pertain to a discussion of regional transportation planning: growth and land use management, recreational pressures, and climate change.

There is projected to be new housing and commercial development in Calaveras County over the next twenty years and will likely be focused in the Valley Springs, Copperopolis, Angels Camp and San Andreas



area. Much of Calaveras County is subject to recreational pressures such as boating, hiking, fishing, biking, camping, and off-road vehicle use. All these activities can disturb wildlife. The *California State Wildlife Action Plan* cites information kiosks and the management of garbage and sewage at visitor information centers as a method for managing recreational use and educating the public about wildlife. The Transportation Companion Plan emphasizes collaboration, outreach, monitoring and evaluation.

Climate change has far reaching consequences on wildlife and wildlife habitat in Calaveras County, ranging from above normal temperatures to changes in water/rainfall patterns to increased wildfires. As vehicle emissions have been linked to climate change, an increase in vehicle traffic will increase the negative effects of climate change. As discussed later in the Action Element, this RTP does not include projects that will significantly increase vehicle traffic (and associated greenhouse gases) in Calaveras County. Additionally, Caltrans data shows that overall traffic volumes along many roadways in Calaveras County have decreased over the last ten years.

Calaveras County Air Pollution Control District

As part of this 2020 RTP update, the Study Team contacted the Calaveras County Air Pollution Control District to obtain their input. The Air Pollution Control Specialist indicated that air quality conditions and the effect of transportation on air quality has not changed since the previous update and is generally good. Calaveras County is in non-attainment for PM-10 standards which qualifies the region for Congestion Mitigation Air Quality (CMAQ) funds.

Private Sector

An important user of the regional transportation system is the private sector. In Calaveras County, this includes businesses which generate a significant amount of truck traffic on Calaveras County highways as well as private transportation providers.

Truck Traffic Generators

Goods movement is an important part of the regional transportation system as well as the economic vitality of the region. Trucking activity in Calaveras County generally includes the transport of timber and agricultural products, and waste management. Multiple companies who generate truck traffic were contacted as part of this process. To date, none have responded.

Public Transit Operators

Calaveras County is served by Calaveras Connect. Managed by the Calaveras Transit Agency and operated through a contractor, Calaveras Connect serves Angels Camp and a majority of the populated unincorporated communities in Calaveras County. The transit system also connects to Amador Transit (in Jackson and Sutter Creek) and Tuolumne County Transit (at Columbia College). Public transit needs are discussed in the modal element chapter of this document.

The *Calaveras County Coordinated Public Transit Human Services Transportation Plan* was last updated in 2020. This RTP is consistent with the current *Coordinated Public Transit Human Service Transportation Plan*.

Citizen and Advocacy Group Participation

A comprehensive public participation plan is an essential component of the RTP process. The CCOG makes a concerted year-round effort towards strengthening general public and stakeholder involvement. The CCOG Public Participation Plan which was adopted in May 2015 is included as Appendix C.

Community Input

Online Survey

An important objective for this RTP update is to obtain input on the transportation planning process from a wide variety of Calaveras County residents. For this reason, a public outreach program was conducted starting early in the RTP process. Due to the safety precautions taken during the Covid-19 pandemic, an online community survey was developed and posted on the CCOG website. A direct link to the survey was emailed to a wide variety of groups for further distribution including representatives from the USFS, local jurisdictions, public transit operators and members of the community. Additionally, notice of availability of the survey was advertised in the following publications (both print and web): Calaveras Enterprise, Union Democrat, Valley Springs News, and The Pine Tree. A total of 113 responses were received. Appendix D presents detailed results of the survey along with advertising materials. A summary of responses follows:

- A large proportion of respondents live along the SR 4 corridor in Arnold and Murphys;
- Over half of respondents are over the age of 65;
- Less than 3 percent of respondents do not have a vehicle available in their household;
- While the personal vehicle is the predominant travel mode, many respondents use other modes on at least an occasional basis. 62 percent indicated they walk for at least 5 percent of their trips, 32 percent bike for at least 5 percent of their trips, and 12 percent use public transit for at least 5 percent of their trips;
- The top “very concerning” regional transportation issue for respondents was “Conflicts between vehicles and bicycles on roadways”, followed by “not enough separated bicycle paths” and “pavement conditions on local roads and streets”. The least concerning issues were “insufficient ADA access” and “more crosswalks in communities;”
- When asked “if there was only one transportation problem you could fix what would it be?”, the greatest number of responses centered around increasing the amount of bicycle and pedestrian paths throughout the county. Another transportation issue respondents thought of as high priority is the implementation of the Wagon Trail Project, followed by lowering and enforcing lower speed limits. Others suggested actions included increasing the number of passing lanes, improving parking signage, widening road shoulders, and expanding public parking in downtown areas;

- When respondents were asked how they would allocate funds of \$100 among a variety of transportation improvement projects. On average, respondents would allocate funding as follows:

Fix existing roads	\$33
Widen shoulders on highways for bicycles	\$15
More lanes on state highways	\$11
Improve pedestrian facilities	\$10
Improve separated bicycle facilities	\$10
More guardrails, striping, signage etc.	\$6
Improve overall transit system	\$6
Build new local roads	\$4
Improve local airport facilities	\$2

Social Equity and Environmental Justice Considerations

Both state and federal laws require that regions plan for and implement transportation system improvements that will benefit all residents. Transportation improvements should not have a disproportionate adverse impact on low income or other under-represented groups. Examples relevant to the RTP include access to transportation, displacement and gentrification, transportation affordability, and jobs/housing fit.

Approximately 11.5 percent of the Calaveras County population is Hispanic, 1 percent is Native American, and 0.5 percent are African American. Approximately 11.7 percent of Calaveras County residents were living in poverty for at least a 12-month period, according to the U.S. Census 2014 – 2018 American Community Survey. This is less than the statewide poverty rate of 15.1 percent during that period. The median household income for Calaveras County is currently \$58,151 which is 81 percent of the statewide median income.

The Action Element of this RTP does not include new roadways or bypass projects that would displace underrepresented groups or decrease access to transportation. The Action Element includes capital improvement projects which will increase mobility for residents with no vehicle available to them, such as maintaining a safe and reliable public transit fleet and expanding the bicycle and pedestrian network. Public outreach for the RTP considered social equity factors. Direct links and notification of the community survey were sent to tribal representatives. Additionally, the *2020 Calaveras County Coordinated Public Transit Human Services Transportation Plan* was reviewed in development of this RTP to ensure that this document addresses the mobility needs of the low income and elderly population.

Coordination with Other Plans and Studies

The RTP Guidelines recommend that the circulation elements of the general plans within a region are consistent with the RTPs in the region. The general plans of the region include the *City of Angels General Plan* (2009) and the *Calaveras County General Plan Circulation Element* (2019). The RTPs should also be consistent with regional transportation plans in adjacent regions, including Amador, Alpine, Tuolumne, Stanislaus and San Joaquin. The primary goals and objectives of other important documents will be incorporated into the RTP including: the *Calaveras County Short Range Transit Plan* (2015), the *Calaveras County Coordinated Public Transit Human Services Transportation Plan* (2020) as well as numerous

corridor plans and bicycle and pedestrian plans. The RTP goes beyond just roadway planning and serves as the basis for future non-motorized transportation improvements such as Active Transportation Planning projects and Complete Streets projects.



REGIONAL DESCRIPTION

Calaveras County is located in the north-central portion of California and is bordered by Amador County to the north, Alpine County to the east, Tuolumne County to the south, and Stanislaus and San Joaquin Counties to the west (as shown in Figure 1). Calaveras County is located within the western foothills of the Sierra Nevada mountain range approximately 133 miles east of San Francisco and 85 miles southeast of Sacramento. The County encompasses approximately 1,100 square miles in area and varies in elevation from sea-level in the west to 8,000 feet in the east. The County seat is in San Andreas and the only incorporated city in the County is the City of Angels, also known as Angels Camp. Other census-designated communities in the County include Arnold, Avery, Burson, Copperopolis, Dorrington, Douglas Flat, Hathaway Pines, Mokelumne Hill, Mountain Ranch, Murphys, Rail Road Flat, Tamarack, Vallecito, Valley Springs, Wallace, and West Point.



State Routes (SR) 49 and 4 are the primary roadways through Calaveras County, connecting the county to surrounding regions. SR 49 runs north to south between Amador County and Tuolumne County. SR 4 runs east to west through the south portions of the county, providing a direct connection from the Bay Area and San Joaquin Valley to the communities along the Highway 4 corridor and recreation. State Routes 12 and 26 run mainly east-west connecting the northern communities of the county. .

POPULATION CHARACTERISTICS

The following section reviews historic and current population trends and demographics within Calaveras County. This information is then followed by an overview of general population projections into 2040. The data used in this section summarizes information collected from both the California Department of Finance (DOF) and United States Census for Calaveras County.

Historic Trends and Existing Population

Table 2 illustrates population data dating back to 1990. According to the US Census 2013-2017 American Community Survey (2013-2017 ACS), Calaveras County has a total population of 45,057 people. This represents a 1.1 decrease from the 2010 Decennial Census counts. Of this population, approximately 92 percent of the population is living within unincorporated areas while the remaining 8 percent (3,760 people) living within the Angels Camp (officially named the City of Angels).

As shown, steady growth has occurred decade over decade with the exception of the most recent seven year period as estimated by the 2013-2017 American Community Survey (2017 ACS) in which a slight decline was reported. An overall growth of 40.8 percent has occurred within the county over the past 27 years, with Angels Camp experiencing the most growth (approximately 56.1 percent), followed by all unincorporated areas (39.6 percent).

TABLE 2: Population Trends in Calaveras County

	Population				% Change	
	1990	2000	2010	2017	1990 - 2017	2010-17
Angels Camp	2,409	3,004	3,836	3,760	56.1%	-2.0%
Unincorporated Areas	29,589	37,540	41,742	41,297	39.6%	-1.1%
<i>Total Countywide</i>	<i>31,998</i>	<i>40,544</i>	<i>45,578</i>	<i>45,057</i>	<i>40.8%</i>	<i>-1.1%</i>

Source: Decennial Census Data (1990, 2000 and 2010) and the 2013-2017 American Community Survey

Demographics

Table 3 and Figure 2 present current demographic characteristics for Calaveras County according to the 2017 ACS. According to this data, the predominate ethnicity is White (82 percent) followed by Hispanic (11.5 percent). Smaller demographic groups include Asian (1.2 percent), Native American (0.9 percent), and African American (0.6 percent).

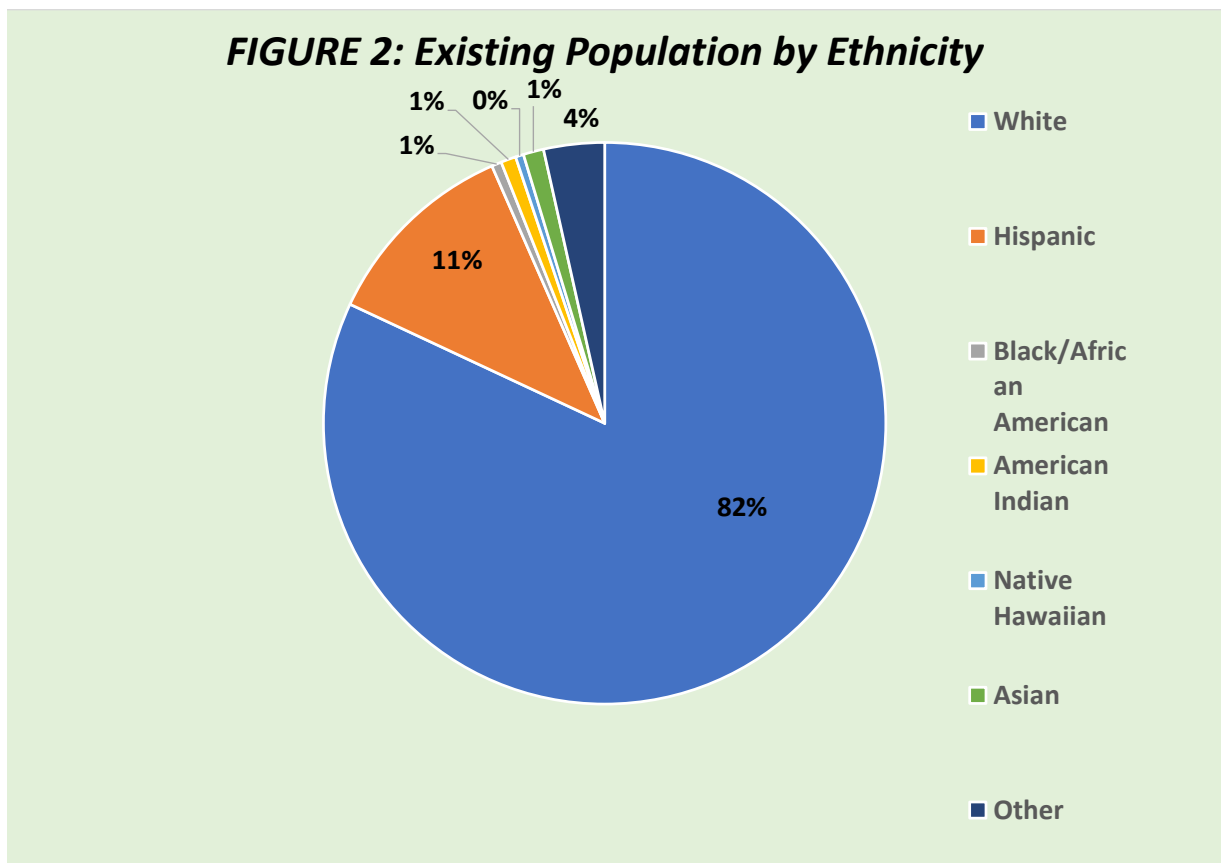
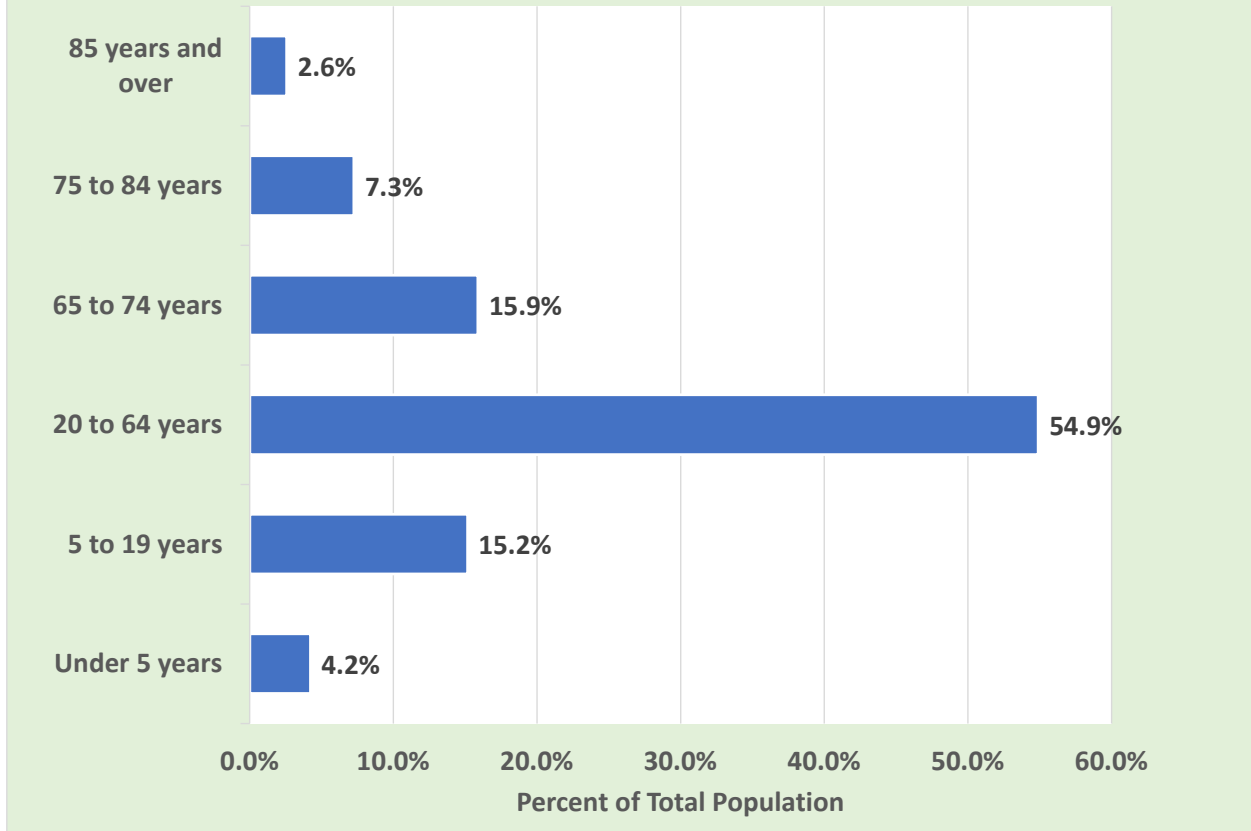


Table 2 and Figure 3 show existing populations by age group distribution. Currently, more than half of the population are between the ages of 20 and 64 (54.9 percent), followed by those between the ages of 65 and 74, and youth between the ages of 5 and 19 (15.2 percent). As a cumulative sum, the population of

FIGURE 3: Existing Population by Age



those who are 65 years of age or older make up 25.7 percent of the population. The growth of the elderly population is an important consideration in terms of public transit needs and is discussed in further detail below.

Table 3 and Figure 4 show the concentration of population ages 65 years and older living throughout Calaveras County. As shown, the census tracts encompassing the communities of San Andreas, Mokelumne Hill, and Valley Springs have the highest population of those age 65 years and older.

Housing

The 2019 ACS estimated that there is a total of 27,995 housing units in Calaveras County. Since the 2010 Census, the total amount of housing has grown by 382 housing units. An important housing characteristic in Calaveras County is that there is a relatively high proportion of vacation homes, particularly in the eastern portion of the county. Nearly 40 percent of housing units in Calaveras County are vacant. As shown in Table 3, census tracts in Arnold and East County have 80 to 89 percent vacant homes. This presents a challenge to planning for transportation infrastructure as funding sources are based on permanent population but there are seasonal influxes of homeowners using the transportation system.

Table 3 and Figure 5 show household (different from housing unit) distribution by Census Tract. As shown, the Valley Springs area has the highest total number of households.

TABLE 3: Calaveras County Characteristics by Census Tract

Census Tract	Area	Population		Ages 65 +		Households		Housing Units		Median Income	
		#	%	#	%	#	%	Total	% Vacant	Average Income	% of State Median
1.2	Copperopolis Area North	4,797	10.6%	1,330	11.5%	1,938	10.90%	2,806	35.1%	\$72,292	100.7%
1.21	Angel City Area	4,382	9.7%	1,312	11.3%	2,114	11.90%	2,597	18.4%	\$54,400	75.8%
1.22	Murphys Area	3,652	8.1%	1,315	11.4%	1,684	9.50%	2,093	27.1%	\$43,981	61.3%
2.1	Valley Springs Area	10,356	23.0%	1,990	17.2%	3,554	20.00%	4,180	12.0%	\$79,322	110.5%
2.2	Rancho Calaveras Area	6,338	14.1%	1,092	9.4%	2,069	11.60%	2,305	8.5%	\$54,971	76.6%
3	San Andreas and Mountain Ranch Area	7,134	15.8%	1,801	15.5%	2,633	14.80%	3,180	22.0%	\$41,266	57.5%
4	West Point, Railroad Flat Area	3,003	6.7%	1,017	8.8%	1,504	8.40%	2,331	48.2%	\$33,917	47.2%
5.01	Forest Meadows Area	3,373	7.5%	979	8.5%	1,395	7.80%	2,786	60.8%	\$52,832	73.6%
5.03	Arnold Area South	1,639	3.6%	600	5.2%	728	4.10%	3,423	80.3%	\$66,034	92.0%
5.04	East County	383	0.9%	149	1.3%	193	1.10%	2,294	89.7%	\$41,528	57.8%
Totals		45,057		11,585		17,812		27,995		\$54,054	75.3%

Source: 2013-2017 American Community Survey

Employment

The California Employment Development Department estimates that there were 20,750 employed individuals within Calaveras County in 2019. During the same year, the unemployment rate (not adjusted seasonally) was 3.5 percent. This represents a 3.7 percent decrease in unemployment from 2014 levels (7.2 percent). The County’s unemployment rate is slightly lower than the California statewide average, which was 3.7 percent for the same period in 2019. These figures represent pre-COVID employment levels. As of August 2020, unemployment in Calaveras County was 7.5 percent.

Table 4 presents the number of Calaveras County jobs by type of industry according to the US Censuses American Community Survey. As shown, “Educational services, health care and social services” is the largest industry (20.8 percent of jobs) followed by “retail trade” (11.7 percent) and professional type jobs (11.4 percent).

The Caltrans Long-Term Socio-Economic Forecast for Calaveras County projects that, between 2019 and 2024, the number of jobs in the County is expected to grow by 0.2 percent annually. This nominal amount of growth is spread equally amongst all existing industries. These forecasts were made prior to the COVID-19 pandemic. As a result of the pandemic, nationwide employment forecasts are uncertain.

Relating economic conditions to transportation needs, an efficient and safe roadway and bicycle network should be established that will encourage tourism and recreational travel while providing safe and efficient travel routes for agriculture and other goods movement.

FIGURE 5
Household Distribution by Census Tract

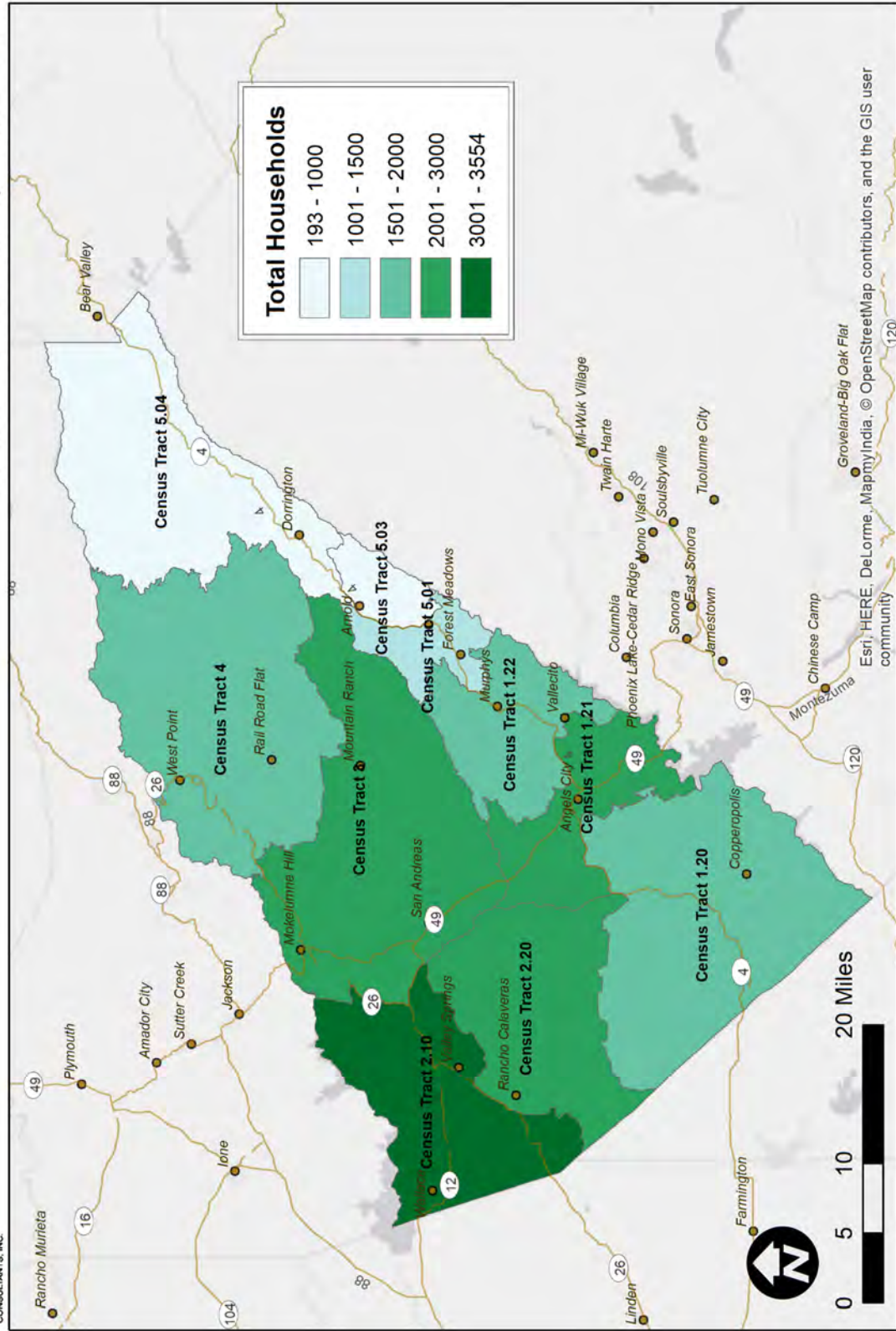


TABLE 4: Employment Industry by Type

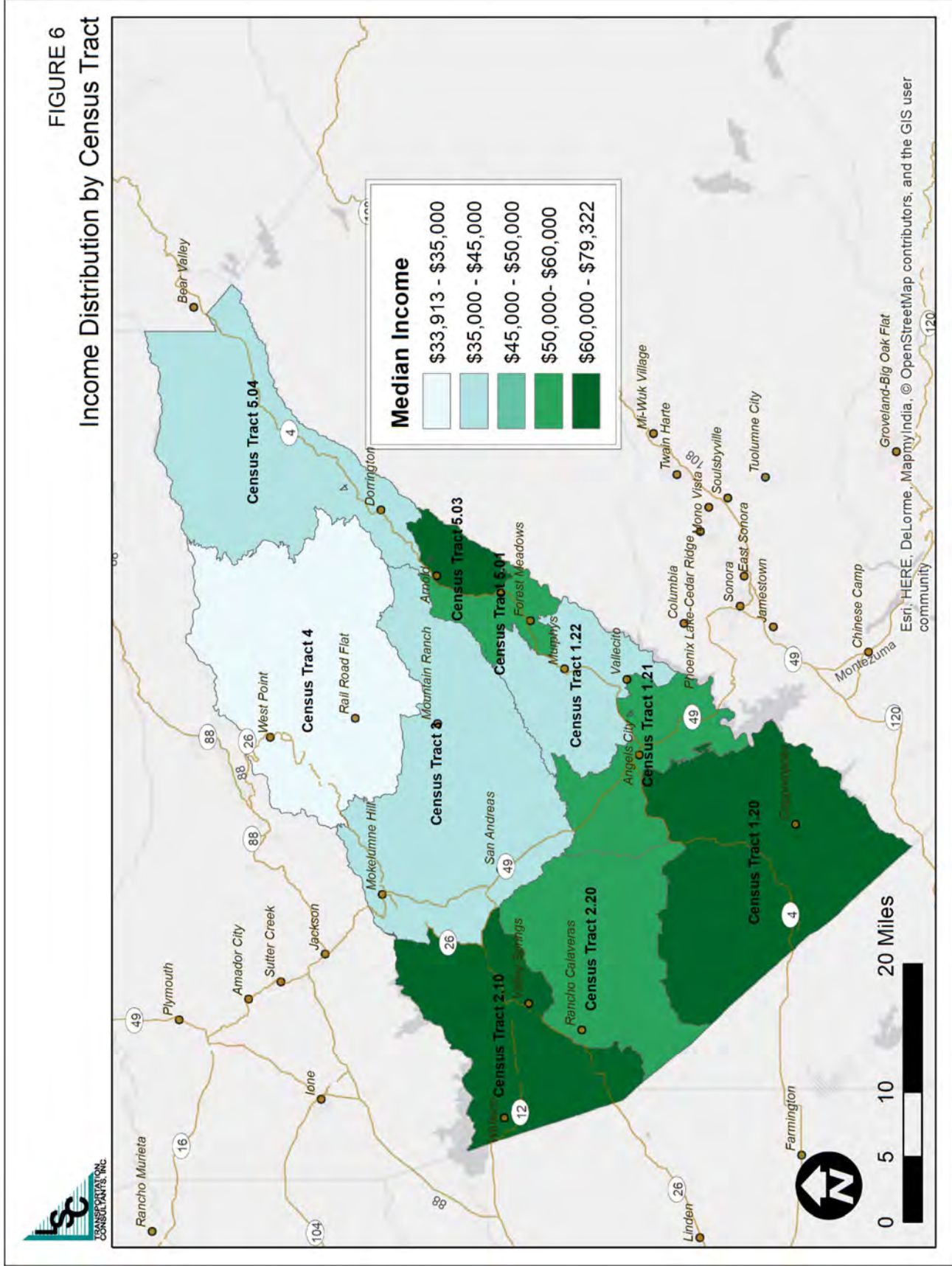
Job	# of Jobs	% of Total
Educational services, and health care and social assistance	3,476	20.8%
Retail trade	1,952	11.7%
Professional, scientific, and mgmt, and admin and waste mgmt services	1,911	11.4%
Construction	1,825	10.9%
Manufacturing	1,484	8.9%
Arts, entertainment, and recreation, and accommodation and food services	1,305	7.8%
Public administration	1,218	7.3%
Transportation and warehousing, and utilities	975	5.8%
Other services, except public administration	807	4.8%
Finance and insurance, and real estate and rental and leasing	661	4.0%
Agriculture, forestry, fishing and hunting, and mining	485	2.9%
Wholesale trade	355	2.1%
Information	267	1.6%
Total Number of Employment Opportunities 16,721		

Source: 2013-2017 American Community Survey

Income

Table 3 above and Figure 6 present the median household income by census tract for Calaveras County along with the percentage of the statewide median income. As of 2017 (the most recently available data), the median household income in Calaveras County was less than 80 percent of the statewide median income in all but three Census Tracts (Census Tracts 1.20, 2.10, and 5.03). According to the Caltrans Long-Term Socio-Economic Forecast for Calaveras County, average salaries in Calaveras County are currently below the California state average and will remain so over the next five years.

FIGURE 6
Income Distribution by Census Tract



Future Population Growth

The California Department of Finance (DOF) provides population projections for California cities and counties. According to these estimates, the Calaveras County population is expected to decline at a rate of 0.7 percent annually over the next 20 years. By 2040, the total population is forecast to be 39,186 people (a total decline of 13 percent). These projections differ from those reported in the previous RTP, which estimated an overall growth of 12 percent over the course of 20 years.

As shown in Table 5 and Figure 7, overall population is expected to decrease over the next 20 years. However, the proportion of the Calaveras County population ages 85 years and older are expected to increase by 178.9 percent over 23 years to 3,223. This represents an average annual increase of this age group of 4.6 percent.

The Calaveras County 2019 General Plan evaluated the following two growth scenarios, both of which include more growth than forecast by the DOF in order to provide a conservative analysis:

- *Market-Level Year 2035* – Assumes addition of 6,374 new dwelling units to the County’s housing stock and addition of 1,560 new employees to the County’s workforce
- *General Plan Buildout (Growth Beyond 2035)* – Assumes addition of 19,979 dwelling units to the County’s housing stock and addition of 4,889 employees to the County’s workforce.

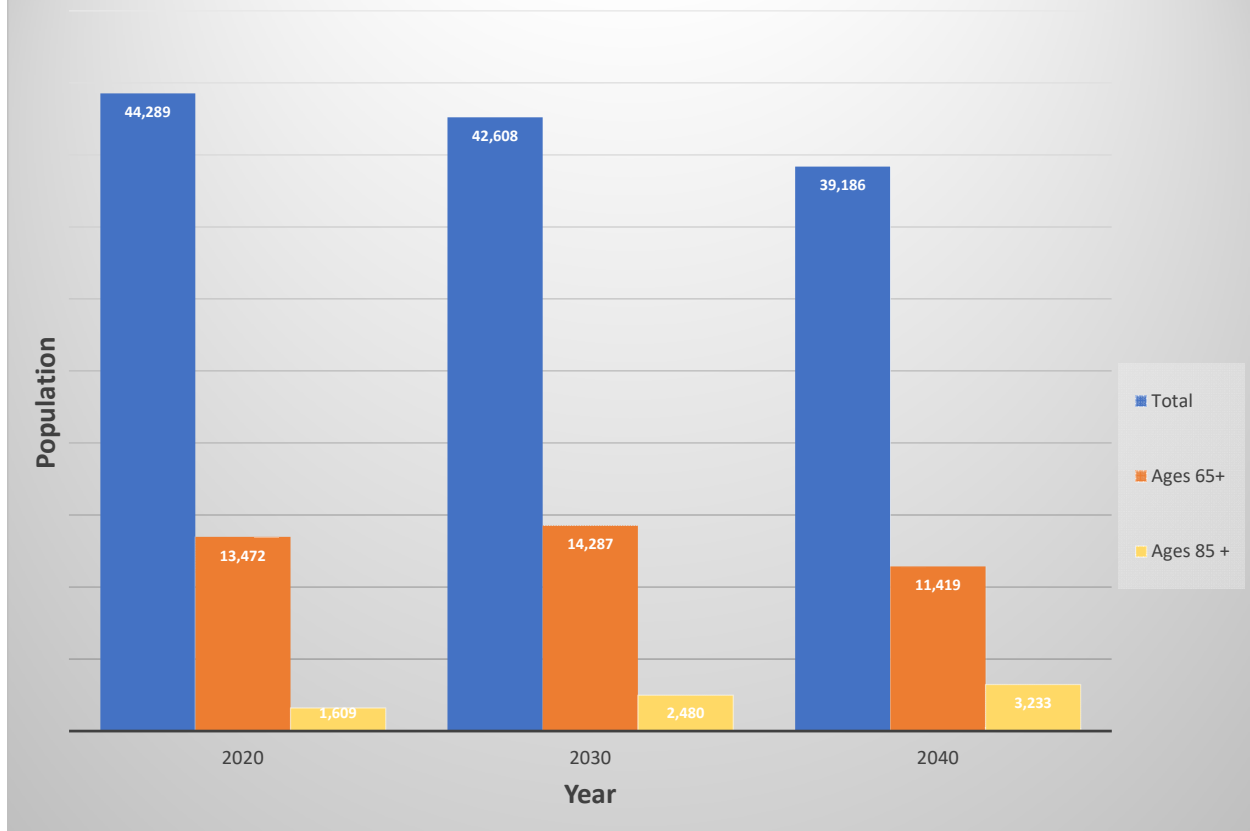
As of this writing, many attractive rural areas such as Calaveras County are experiencing changes in population related to the COVID-19 pandemic, including increased use of second homes. The long-term impact of this trend is uncertain.

TABLE 5: Population Projections

Population	2017		2020		2030		2040		% Change 2017-2040	
	#	%	#	%	#	%	#	%	Avg. Annual	Total
Total	45,057	100%	44,289	100%	42,608	100%	39,186	100%	-0.6%	-13.0%
Ages 65+	11,585	25.7%	13,472	30.4%	14,287	33.5%	11,419	29.1%	-0.1%	-1.4%
Ages 85 +	1,159	2.6%	1,609	3.6%	2,480	5.8%	3,233	8.3%	4.6%	178.9%

Source: 2013-2017 American Community Survey and California Department of Finance Table P:1 State and County Population Projections by Major Age Groups

FIGURE 7: Population Projections by Age Group



COMMUTE PATTERNS

The US Census Bureau’s Center for Economic Studies Longitudinal Employer Household Dynamics dataset offers the most recent commute pattern data statistics (2017). It should be noted that this data reflects all persons reporting their work location, regardless of how often they commute (including some persons that work completely remotely from their designated paycheck location). As such, this data source can be misleading in that it includes persons that only report to their work location infrequently. However, it is the best commute data available for Calaveras County.

Calaveras County Residents and Workforce

According to the data in Table 6, only 23.4 percent of employed residents of Calaveras County work within Calaveras County. Around 2,300 employees (11.3 percent) travel west to San Joaquin County, followed by 1,483 (7.3 percent) who commute northwest to Sacramento County. Stockton is a common place of employment for Calaveras County residents (1,102 employees). These residents likely commute via SR 26 or SR 4. Note that 27.1 percent of Calaveras County residents also work in “other” locations. It is likely that this population of 5,436 people are working remotely and telecommuting to work.

TABLE 6: Calaveras County Commute Patterns

Where Calaveras County Residents are Employed			Where Calaveras County Workforce Lives		
County	# Persons	% Total	County	# Persons	% Total
Calaveras County	4,739	23.4%	Calaveras County	4,739	53.3%
San Joaquin County	2,300	11.3%	Tuolumne County	636	7.2%
Sacramento County	1,483	7.3%	San Joaquin County	557	6.3%
Alameda County	1,317	6.5%	Sacramento County	444	5.0%
Santa Clara County	1,167	5.8%	Stanislaus County	422	4.8%
Stanislaus County	895	4.4%	Amador County	402	4.5%
Tuolumne County	862	4.3%	El Dorado County	222	2.5%
Contra Costa County	806	4.0%	Placer County	134	1.5%
Amador County	736	3.6%	Contra Costa County	109	1.2%
Fresno County	474	2.3%	Fresno County	103	1.2%
All Other Locations	5,486	27.1%	All Other Locations	1,116	12.6%
<i>Total Number of Persons</i>	<i>20,265</i>		<i>Total Number of Persons</i>	<i>8,884</i>	
Census Place	# Persons	% Total	Census Place	# Persons	% Total
San Andreas	1,204	5.9%	Rancho Calaveras	614	6.9%
Stockton	1,102	5.4%	Angels Camp	492	5.5%
Angels Camp	857	4.2%	Copperopolis	373	4.2%
Sacramento	570	2.8%	Murphys	350	3.9%
San Jose	528	2.6%	Arnold	316	3.6%
San Francisco	468	2.3%	San Andreas	291	3.3%
Murphys	424	2.1%	Valley Springs	285	3.2%
Arnold	417	2.1%	Mountain Ranch	160	1.8%
Modesto	391	1.9%	Stockton	153	1.7%
Sonora	357	1.8%	Modesto	141	1.6%
Oakland	354	1.7%	Forest Meadows	134	1.5%
Valley Spring	338	1.7%	Lodi	130	1.5%
Lodi	307	1.5%	Sonora	108	1.2%
Fresno	288	1.4%	Sacramento	80	0.9%
Jackson	226	1.1%	Mokelumne Hill	76	0.9%
All Other Locations	12,434	61.4%	All Other Locations	5,181	58.3%
<i>Total Number of Persons</i>	<i>20,265</i>		<i>Total Number of Persons</i>	<i>8,884</i>	

Source: US Census, 2017

A fair number of Calaveras County workers commute from other counties. Roughly 636 workers travel north on SR 49 from Tuolumne County, 557 travel from the east in San Joaquin County 444 from Sacramento County, 442 from Stanislaus County and 402 from Amador County.

The 2017 ACS conducted by the US Census Bureau provides additional commute data for Calaveras County, including means of transportation to work and travel times. According to the survey, 79.1 percent of workers drove alone, 9.9 percent carpooled, 8.3 percent worked from home, 1.2 percent walked, 1 percent used public transportation, 0.1 percent bicycled, and 0.6 percent used other means. This represents a slight decrease in the proportion of residents driving alone to work and using one of the

other modes from the previous RTP update. According to census data, the mean travel time to work was 35.5 minutes; this is about 2 minutes longer than three years previous.

Visitor and Travel Statistics

Calaveras County's gold rush history and recreational opportunities attracts a substantial number of visitors each year. The county's major outdoor recreational destinations include Calaveras Big Trees State Park, Stanislaus National Forest, multiple caves, and more than a dozen lakes. These places host a variety of activities such as hiking, mountain biking, tours, kayaking, fishing, and camping. Communities such as Angels Camp, Murphys, and San Andreas also attract visitors seeking tours and museums focusing on the gold rush era. Lastly, Murphys is home to many vineyards and wine-tasting establishments. According to the Calaveras County Visitors Center, tourism generated \$14.6 million in state and local taxes in 2018. Visitors are most likely to use SR 49 or SR 4.

PUBLIC HEALTH AND HEALTH EQUITY

Appropriate transportation improvement projects can have a positive impact on overall public health. As such, public health and health equity should be factored into regional transportation improvement decision making. Improvements to existing bicycle paths and sidewalks will increase the safety and appeal of the facility, thereby encouraging more users. New facilities provide a safe active transportation alternative to driving. Roadway or streetscape improvements, which slow down vehicle traffic, also make residents feel more comfortable walking or biking. In a modern society driven by computers and cell phones, providing opportunities for people to walk or bike is becoming increasingly important for public health.

A variety of health statistics for the Calaveras County gathered from kidsdata.org and the community demonstrate that Calaveras County ranks below than the statewide average for certain health statistics.

- Around 36 percent of middle school students in Calaveras County are considered overweight or obese. This is slightly below the statewide average of 39 percent.
- 32 percent of 9th graders in Calaveras County meet fitness standards, whereas 34 percent do statewide.

When making transportation funding decisions, decision makers should consider how each project impacts public health, encourages active transportation modes and include public health organizations in public outreach efforts.

AIR QUALITY

Air quality is a significant consideration in planning for and evaluation of transportation systems. Both state and federal law contain significant regulations concerning the impact of transportation projects on air quality. The California Air Resources Board (CARB) divides the state into air basins and adopts standards of quality for each air basin. Calaveras County is part of the Mountain Counties Air Basin, with air quality managed by the Calaveras County Air Pollution Control District.

The United States Environmental Protection Agency (EPA) established standards for air pollutants that affect public health and welfare. Likewise, CARB established state standards, which are stricter than the federal standards. According to CARB, Calaveras County is considered “in attainment” or unclassified for federal particulate matter (PM) 10, federal PM 2.5, state PM 2.5, carbon monoxide, nitrogen dioxide, sulfur dioxide, sulfates, lead, hydrogen sulfide and visibility reducing particles. . The county is not in attainment for state and federal Ozone and state PM 10 as of 2019.

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

TRANSPORTATION/LAND USE INTEGRATION

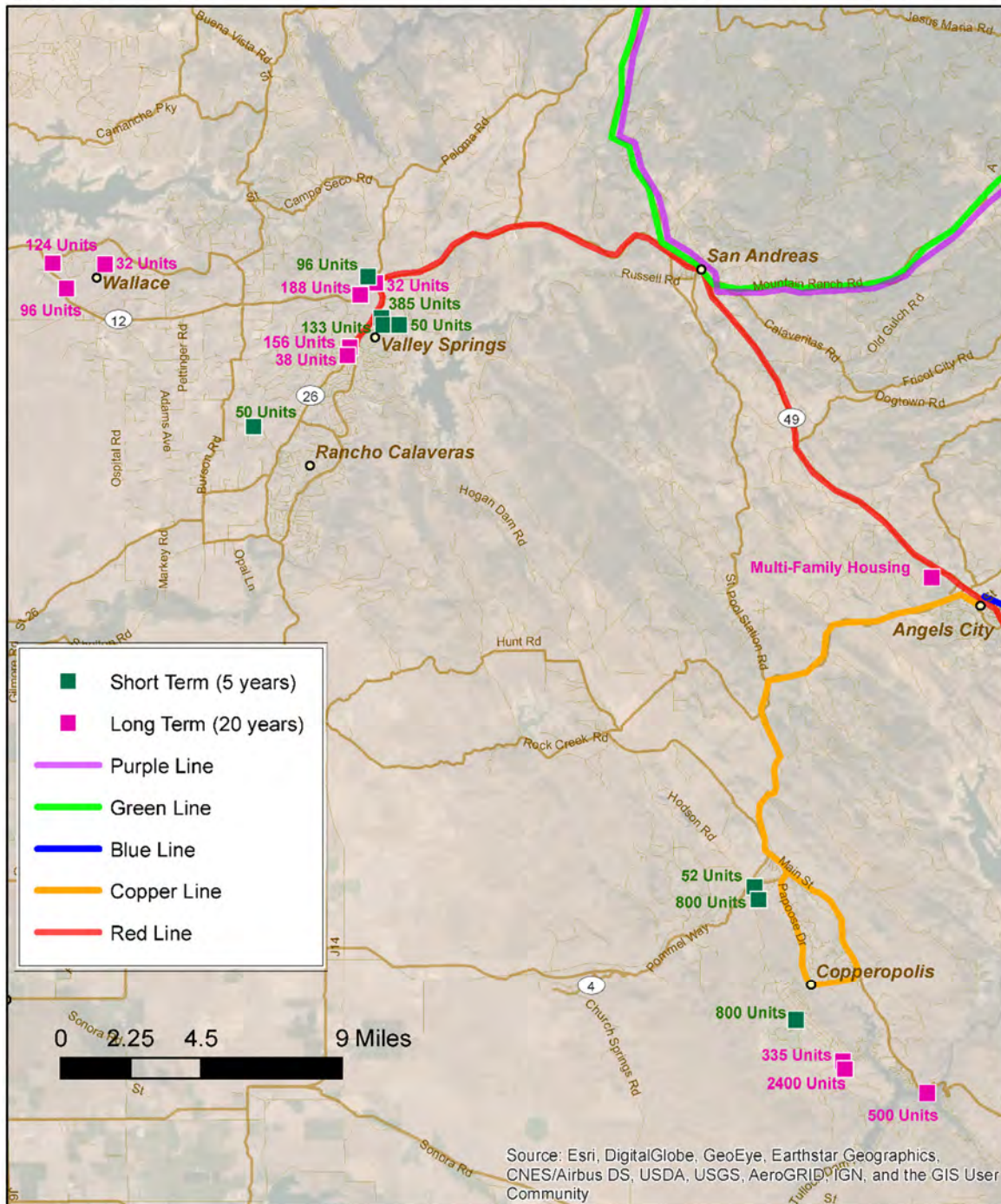
According to the *2020 Calaveras County General Plan*, there is a significant amount of vacant land available for residential and non-residential development. The General Plan buildout scenario allows for approximately 20,300 new units. At the current census rate of 2.41 persons per household, this could accommodate almost 49,000 new people. Additionally, there is 438 acres of vacant land available for development in the Community Center land use designation, 784 acres of commercial land and 8,203 acres industrial land.

Coordinating land use changes and growth with transportation planning is one of the most important considerations in modern planning. A new transportation facility to an outlying area can have the effect of increasing land uses by providing convenient transportation to locations far from community centers and services. This can have negative effects on the environment and the regional transportation system. Additionally, it is important to consider transportation needs (roadways, bicycle paths and public transit) prior to approving and constructing a new development.

Figure 8 displays the location of future residential and commercial development per the Calaveras County Planning Department. Over the short-term (5 years) and long-term (20 years) planning periods development is centered around the Valley Springs and Copperopolis areas. As shown in Figure 8, some of the long-term developments are not located near Calaveras Connect transit routes. This should be addressed in the future.



FIGURE 8
Calaveras County Future Developments



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Below is a summary of the most relevant existing plans and studies to date that have been taken into consideration during the RTP planning process.

EXISTING PLANNING DOCUMENTS

Calaveras County General Plan Circulation Element (2019)



The Calaveras County General Plan's Circulation Element provides structure in decision-making as it relates to the countywide transportation system consisting of road, transit, bicycle, pedestrian, and aviation modes of travel. The Circulation Element provides an overview of existing planning documents and setting, followed by various goals and policies. The document identified the following five major goals:

1. A balanced circulation system that provides for the safe and efficient movement of people and goods while maintaining the county's rural and historic character.
2. A roadway system that provides safe and efficient access and mobility for Calaveras residents, visitors and businesses and adequately serves existing and planned land uses.
3. A safe, effective, and efficient public transportation service that meets the reasonable needs of Calaveras residents.
4. A safe and efficient aviation system that enhances safety to the public, minimizes the adverse effects of operations on people, and promotes economic health.
5. A safe, convenient transportation network for pedestrians, cyclists, and users of other non-motorized modes of transportation that is suitable for the rural nature of the county and its topography.

In order to achieve these goals and proposed policies, the Circulation Element outlined various implementation programs related to general circulation, roadway transportation, public transit, airports, and non-motorized transportation. The plan ultimately recommended the following four major infrastructure improvements:

- Construction of the SR 4 Wagon Trail Realignment Project.
- Addition of passing lanes on segments of SR 4, SR 12, and Murphys Grade Road.
- Addition of passing zones on O'Byrnes Ferry Road.
- Four-lane widening (for local access) on SR 4 in Murphys and SR 26 in Valley Springs.

City of Angels Camp 2020 General Plan and Circulation Element (2009)

The City of Angels Camp (Angels Camp) completed a General Plan with an updated Circulation Element in 2009. The General Plan summarized various goals, policies, and implementation measures to ensure improved circulation within Angels Camp including the following:

- Adopt and facilitate construction of routes serving low-impact modes of transportation that link commercial, residential, school, recreational, and public land uses.
- Emphasize connectivity between pedestrian, bicycle, transit and road facilities.
- Encourage use of public transportation.
- Waive, reduce, or defer Traffic Impact Mitigation Fees for specific projects, such as the provision of affordable housing.
- Support the following construction of the following collector road extensions: Angel Oaks Drive, Demarest Street, and Kurt Drive.
- Support the following construction of the following local road extensions: Bennett Street to Angel Oaks Drive, Copello Drive to Angel Oaks Drive, Purdy Road.
- Expand transit stops along existing fixed routes such as Copello Drive and SR 49.
- Prioritize trails such as the Angels Creek Trail.

Coordinated Public Transit Human Services Transportation Plan (2020)

The Coordinated Public Transit Human Services Transportation Plan for Calaveras County evaluated existing conditions and transit services, identified mobility needs for low income, elderly and disabled populations and summarized potential coordination opportunities between different transportation providers throughout Calaveras County. The plan identified the following seven major goals:

1. Develop reopening and stabilizing of Calaveras Connect services (after COVID) in structured phases consistent with State and County guidance.
2. Continue building a robust, sustainable public transportation system for travelers in and through Calaveras County.
3. Strengthen pilot, lifeline services toward establishing effective, sustainable programs that meet mobility needs of residents living in isolated communities and/or traveling out-of-county.
4. Maintain an active and integrated transportation information network to increase awareness and use of available public transit and human service transportation options.

5. Coordinate affordable housing development with transit, supporting locations near existing transit to improve the quality of life for low-income residents and ensure access to essential services of health care, education and employment. Collaborate around local emergency transportation initiatives to support Coordinated Plan target group members during times of emergency.
6. Promote infrastructure and capital improvements that support mobility, including public transit use and active transportation use by pedestrians and bicyclists.

Through a series of prioritization public workshops, the plan developed a series of coordinated strategies and ranked them high, medium, and low. Many of these strategies echoed those identified by the Short Range Transit Plan. Strategies ranked “high priority” included reintroducing Calaveras Connect services (post-COVID-19), implementing piloted Lifeline Services (including West Point and Copperopolis), increasing Calaveras Connect frequency, piloting a mileage reimbursement program (coordinated with Tuolumne County’s TRIP program), and seeking funding for complete street-type initiatives that support multimodal transportation.

The plan also highlighted the importance of seeking out both traditional and nontraditional funding sources to sustain pilots and nonemergency medical services, including FTA Section 5310 capital and operations funding and other discretionary grant fund sources.

Calaveras County Pavement Management Program Update (2019)

Nichols Consulting Engineers (NCE) completed a Pavement Management Program Update in 2019. Calaveras County currently manages 685.5 miles of paved roadways composed of asphalt concrete. The document describes the existing network and pavement condition and offers strategies to maintain and rehabilitate these networks efficiently. These strategies include:

- Micro-surfacing as preventive maintenance while pavements are in “Good” and “Fair” (non-load) condition
- Base repair and micro-surfacing when pavements are in “Fair” (load-related) condition
- Cold-in-Place Recycling with cape seals when pavements are in “Poor” or “Failed” condition

To implement these strategies, the document presented an analysis of funding sources and predicted expenditures. The program outlined four recommendations related to funding, pavement maintenance strategies, reinspection strategies, and a maintenance and rehabilitation decision tree. Pavement management conditions are discussed in greater detail in the Modal Element.

Murphys SR 4 Complete Streets Corridor Plan and Project Prioritization (2019)

The Murphys SR 4 Complete Streets Plan evaluated the SR 4 corridor through Murphys, California and identified projects to improve walking and biking safety along the street corridor. Murphys is a challenging corridor to navigate for pedestrians and bicyclists. There is a need for improvements due to a high percentage of seniors, a lower than county average median income, and the presence of the Albert

Michelson Elementary School across the highway from downtown Murphys and nearby residential developments.

Along with a review of existing conditions, the plan provides recommended improvements for six street segments. Recommendations included actions to increase wayfinding signage, enhance road shoulders, improve parking lots, bike routes, and crosswalks along the following six street segments:

1. SR 4 West of Pennsylvania Gulch Road to Feeney Park
2. Pennsylvania Gulch Road
3. Central SR 4 and Main Street/Jones Street SR 4 Intersection
4. Big Trees Road/Tom Bell Road SR 4 Intersection Area
5. SR 4 East of Tom Bell Road
6. Main Street and Big Trees Road Area

Central Sierra Zero Emission Vehicle Readiness Plan (2019)

To address California's Executive Order B-16, the Central Sierra region developed a plan to mitigating greenhouse gas emissions through the implementation of zero emission vehicles. The Central Sierra Zero Emission Vehicle (ZEV) Readiness Plan incorporates input and advisory from stakeholders from all four Counties of the Central Sierra Region: Calaveras, Tuolumne, Amador, and Alpine. The Readiness Plan provides an overview of existing conditions, current technology, and an identification of gaps in electric vehicle infrastructure.

The Readiness Plan recommends that electric vehicle charging be implemented in the larger communities of Calaveras such as Murphys, Arnold, San Andreas, Angels Camp, and Valley Springs. Specific locations within these areas included public parking lots, hospitality resorts, health care institutions, and educational facilities.

Systemic Safety Analysis Report (2018)

The Calaveras County Systemic Safety Analysis Report identifies safety projects that could be funded by the Highway Safety Improvement Program (HSIP). Through analyzing the County's collision history, critical locations for improvement were identified and recommendations to improve safety were outlined. The following ten segments were identified as high traffic volume areas prone to collisions:

1. Rock Creek Road between Copperopolis and Felix
2. SR 12 through Valley Springs
3. Jesus Maria Road between Rainbow Road and Banner Road
4. SR 26 through Glencoe
5. Mountain Ranch Road between SR 49 and Windmill Circle
6. Pool Station Road (north) between Cement Plant Road and
7. Pool Station Road (south) between 1.2 miles north of Riata Way to SR 4
8. SR 49 through San Andreas
9. SR 26 through Mokelumne Hill
10. S Burson Road/Olive Orchard Road between SR 12 and SR 26

Recommendations to mitigate collision rates along these segments included high friction surface treatments, updated guardrail installation, restriping and reflective pavement markers, rumble strips, street lighting, and the posting of radar speed feedback signs.

San Andreas SR 49 Commercial Gateway & Corridor Study (2017)

The SR 49 Corridor Study identified opportunities to establish a “Southern Gateway” into San Andreas in response to the *2013 Main Street California – A Guide for Improving Community and Transportation Vitality* completed by Caltrans. The following key concepts served as defining features of the transportation recommendations for the San Andreas area:

- Community gateways
- Intersection Control and Highway Access
- Multi-modal Infrastructure
- Speed Reduction Infrastructure

The study aimed to achieve major goals such as increasing community character, improving intersection capacity, expanding pedestrian and bicycle safety, and imposing speed reduction techniques. The study ultimately recommended the installation of signage, bicycle lanes, and improved sidewalks. Traffic calming measures such as traffic signals and roundabouts were also suggested.

Short Range Transit Plan (2021-2025)

The purpose of this Short Range Transit Plan was to guide Calaveras Connect services towards improved efficiency and mobility for both residents and tourists. The plan was completed during the COVID-19 pandemic and therefore was designed to address a sharp decrease in public transit ridership due to stay at home orders as well as to slowly adjust to a hopeful return to pre-pandemic levels of transit ridership.

The plan includes an overview of existing Calaveras Connect operating characteristics, demographic information, and public outreach results. The following capital improvements and service alternatives were recommended:

- Increased service frequency on the core route (Red Line)
- A shuttle from Angels Camp to Columbia College in Tuolumne County
- Transition to general public Dial-A-Ride from fixed route service for West Point, Mokelumne Hill and Jackson in Amador County.
- Reinstate Saturday Hopper service between Arnold and Copperopolis
- The five year capital plan includes replacing transit vehicles as they reach the end of their useful life (some diesel, some electric), implementing electric transit vehicle infrastructure, bus stop improvements and other equipment and minor facilities purchases such as solar lighting and dispatching software.

Regional Bicycle, Pedestrian, and Safe Routes to School Plan (2015)

This plan evaluated existing regional conditions as they relate to bicycle and pedestrian safety and offered goals and objectives to be achieved through various recommendations. Through conducting a needs analysis, the plan identified gaps in infrastructure such as bicycle trails and pedestrian sidewalks. The following areas were recognized for bicycle and pedestrian improvements:

- Angels Camp
- Calaveras County Communities of Arnold, Avery, Copperopolis, Mountain Ranch, Murphys, San Andreas, Valley Springs, and West Point

An analysis of collision data provided further information as to where unsafe environments currently exist within the county. The gaps and recommendations in regional bicycle and pedestrian infrastructure identified in this plan are incorporated into the Action Element.

Angels Camp Main Street Plan (2015)

The Angels Camp Main Street Plan addresses the community design, public spaces, bicycle, and pedestrian facilities along the Main Street portion of SR 49. Through an analysis of existing conditions and summary of current traffic characteristics, a series of stakeholder and public outreach meetings were conducted. Using the feedback and input collected from the community combined with a deep understanding of existing conditions, a series of design concepts were proposed.

These design alternatives included the implementation of contiguous sidewalks and bike lanes, enhancement of the streetscape (landscaping, seating, and signage), and the addition of bus pullouts. The plan also recommended various intersection improvements such as sidewalks, pullouts and pedestrian signals.

Angels Camp State Route 4 and 49 Gateway Corridor Study (2014)

Similar to the San Andreas Corridor Study described below, this plan evaluates opportunities to establish a “Southern Gateway” into Angels Camp on SR 49. Both short- and long-term recommendations were recommended to improve the study area. Short-term improvements included streetscape enhancements along SR 49 (Saint Charles Street) between SR 12 and Mountain Ranch Road such as wayfinding signage, Class II bicycle lanes, sidewalks, and parking lot access. Long-term recommendations along SR 49 included the realignment of Angels Road, increased signalization and the installation of a single-lane roundabouts at Pool Station Road and Airport Road.

Annual Unmet Transits Needs Reports

The Annual Unmet Transit Needs Reports are completed each year to assess existing unmet transit needs within Calaveras County in accordance with TDA funding regulations. Residents are encouraged to comment on their unmet needs via surveys, emails, public hearings, and community meetings. The following summarizes the three most recent reports completed for Calaveras County:

- The Fiscal Year 2019/2020 Report summarized comments related to new services between Calaveras County and Stockton, revisions to service schedule, and the need to expand dial-a-ride services. There were no unmet transit needs identified during this period that were reasonable to meet;
- The Fiscal Year 2018/2019 Report discussed the expansion of County services to Stockton, Amador, and Sacramento as well as route revisions to better serve local tourism and retail. Ultimately there were no unmet transit needs identified during this period that were reasonable to meet; and

The Fiscal Year 2017/2018 Report period included comments related to additional bus stops off Main Street in Murphys, extended bus services later into the evening, and improvements to transfers between adjacent counties. Ultimately there were no unmet transit needs identified during this period that were reasonable to meet.

Valley Springs Town Center Connectivity Plan (2020)

The objective of the Valley Springs Town Center Connectivity Plan is to provide a framework for future transportation projects for the Valley Springs region. A Sustainable Transportation Planning Grant provided by Caltrans is funding the planning effort. The process includes feedback from an advisory committee, stakeholder interviews, and multiple community meetings in order to gather the most comprehensive feedback for improved bicycle, pedestrian, and vehicular connectivity along the SR 12 and SR 26 corridors. Key recommended improvements were developed through collaboration with residents and stakeholders through the identification of existing and future demands for non-vehicle transportation facilities. These projects were sorted by six specific project areas and included the following:

- [Township West \(Valley Springs Elementary School, Valley Springs Library, Veterans Memorial Hall/ Valley Springs Memorial Park\)](#) – New sidewalks, crossings, and shared use paths along Sequoia Avenue and Pine Street to provide safer routes to schools;
- [Township East \(Central Residential Area of Valley Springs\)](#) – Improved crossings at most intersections, new sidewalk on one side of each street, and a new connected network of shared use paths on California Street, Daphne Street, and Sequoia Avenue, connected by the sidewalks running north to south. This will encourage more modes of travel by improving connectivity to adjacent land uses;
- [Town Center \(Commercial corridor of SR 12/SR 26\)](#) – Pedestrian, bike, and roadway improvements around Laurel Street and the township blocks adjacent on both sides of Laurel Street from SR 12 to Daphne Street to create a more walkable downtown Town Center;
- [Highway 12 West \(SR 12\)](#) – Increase sidewalk along SR 12 and on Pine Street, improve crossings between SR 12 and Pine Street, add a buffered bike lane on the south side of SR 12, and a bike lane with conflict markings on the north side. This will create a safer walking and bicycling experience along this busy corridor;

- [Highway 12 East \(SR 12\)](#) – Implement shared use path with buffer on both sides of Highway 12, a new traffic signal at the entry to the Valley Oaks Shopping Center, and bicycle lanes with green conflict markings on the south side of Highway 12. These improvements will have a similar impact as the SR 12 West discussed above; and
- [Highway 26 \(SR 26\)](#) – Sidewalk improvements to fill existing gaps on both sides of SR 26, crossings at SR 26 and Nove Way, and buffered bicycle lanes.

Pope Street Class 1 Facility and Safe Routes to School Gap Fill Plan (2020)

This plan provides background information and justification for developing bicycle and pedestrian infrastructure along Pope Street and Lewis Avenue in San Andreas. Pope Street is characterized as having narrow roadways, few sidewalks, very little pedestrian crossings lacking connectivity to adjacent infrastructure, and no bicycle lanes. Additionally, the few existing disconnected sidewalks and crosswalks do not meet current ADA requirements.

As a solution, two different design alternatives were developed to improve walking and bicycling connectivity along the corridor. Design Alternate 1 proposed a protected Class I, multi-use path while Design Alternate 2 suggested standard sidewalks throughout the Pope Street project area. After close considerations of all design concepts, the community voted to implement Design Alternate 2a which would align the multiuse path on the north side of Pope Street.

Angels Camp North Main St/SR-49 Complete Streets Corridor Plan & Copello Road Pedestrian Connector (2020)

This plan combines various transit, bicycle, and pedestrian safety improvements in Angels Camp along SR 49 between Copello Road and SR 4. The study area currently has very little to no mobility infrastructure despite its high density of residential low-income and Section 8 housing. Future residential and commercial development is also proposed for construction in the near future.

To improve public safety and mobility throughout the corridor, multimodal infrastructure such as bicycle paths, sidewalks, and other traffic calming projects were considered. The final projects recommended in the plan included the following:

- ➔ Class II bicycle lanes on each side of North Street/SR 49
- ➔ Transit stops on SR 49 at Copello Road and Cherokee Creek
- ➔ Class I shared use path along the south side of SR 49
- ➔ New bridge crossing over Cherokee Creek, connecting the Class I path
- ➔ Sidewalks connecting residential areas to SR 49

ROADWAY TRANSPORTATION SYSTEM DESCRIPTION

The Calaveras County regional roadway network comprises just over 1,000 miles of streets, roads and highways. The roadway network includes paved and dirt roadways owned by the State Park Service, US Forest Service, the Army Corps of Engineers, California State Parks, Bureau of Indian Affairs (BIA) jurisdiction, and the Bureau of Land Management.

Road Classification

Figure 9 illustrates Calaveras County's main roadway system. Most of the existing streets and highways within the county are two-lane roadways of varying width (depending on functional classification and usage). Major roadway classifications include the following:

- Principal Arterials - Arterials link cities, larger towns, and other major traffic generators to provide interstate and inter-county travel. SR 49 within Calaveras County is considered a principal arterial along with the portion of SR 4 from Angels Camp to the San Joaquin County border.
- Minor Arterials are roadways that provide for moderate length trips between communities. They are considered to allow through traffic to flow at relatively high speeds with minimum interference from various of access points. Within Calaveras County, SR 4, 12, 26, and 49 are all classified as minor arterials;
- Collectors connect traffic from local roads to arterials. They provide service to larger towns not directly served by the arterial system and essentially move traffic from one community to the next by providing connections to/from smaller communities to the minor arterials;
 - Major collectors are typically longer with higher speed limits. Examples of major collectors within the county are Murphys Grade Road, Parrotts Ferry Road, and O'Byrnes Ferry Road;
 - Minor collectors move traffic from traffic generators such as residential areas or commercial centers, to major collectors or minor arterials. Minor collector roadways include Copper Cove Drive, Ospital Road and Moran Road; and
- Local Roads serve travel over relatively short distances to access specific properties or adjacent lands. They include all roads not otherwise designated according to classes above.

State Highways

The District 10 state highways transecting Calaveras County are described below.

SR 4 – SR 4 runs northeast and southwest along the southern portion of the County. The route begins at Interstate 80 in the Bay Area and enters the County from San Joaquin through Telegraph City and makes

its way up through Copperopolis, Angels Camp, Murphys, and Arnold. It also provides access to the Calaveras Big Trees State Park, National Forests, and Bear Valley Ski Resort in Alpine County. The western portions of the highway are affected by commuter and recreational traffic. The central and eastern segments of SR 4 are used by recreational and truck traffic. Travel is slow along this route in the eastern portion of the County as it winds up the Sierra and over Ebbetts Pass into Alpine County, which is closed during the winter months.

[SR 12](#) – Located in the northwest portion of the County, SR 12 connects the western county line with Wallace, Burson and Valley Springs before intersecting with SR 49 just west of San Andreas. This state route serves as connector to San Joaquin County. It is primarily two-lanes with no designated bike lanes.

[SR 26](#) – Providing the most direct connection from the northern portion of the county to Stockton to the west, SR 26 runs east through Valley Springs, intersecting SR 12, and continuing east to Mokelumne Hill where the route intersects SR 49, and up country to West Point. It is considered a minor arterial and provides access to New Hogan Reservoir.

[SR 49](#) – This highway runs north and south through Calaveras County, linking various Sierra foothill communities from Plumas County on the north to Mariposa County on the south. This two-lane rural minor arterial travels through the “Mother Lode” communities of Carson Hill, Angels Camp, Fourth Crossing, San Andreas, and Mokelumne Hill and serves local roads such as Pool Station Road, Mountain Ranch Road, Red Hill Road, and Murphys Grade Road.

National Scenic Byways and Scenic Roadways

Calaveras County’s unique topographical and environmental characteristics draw visitors and residents to various outdoor recreational activities. The County recognizes these scenic resources and aims to protect access to these attributes. In order to preserve the scenic, historical, and recreational resources located in the County, a 58-mile stretch of SR 4 and SR 89 was designated as the Ebbetts Pass National Scenic Byway by the US Department of Transportation in 1971. Other portions of both SR 4 and SR 49 are listed as “Eligible State Scenic Highways” by Caltrans.

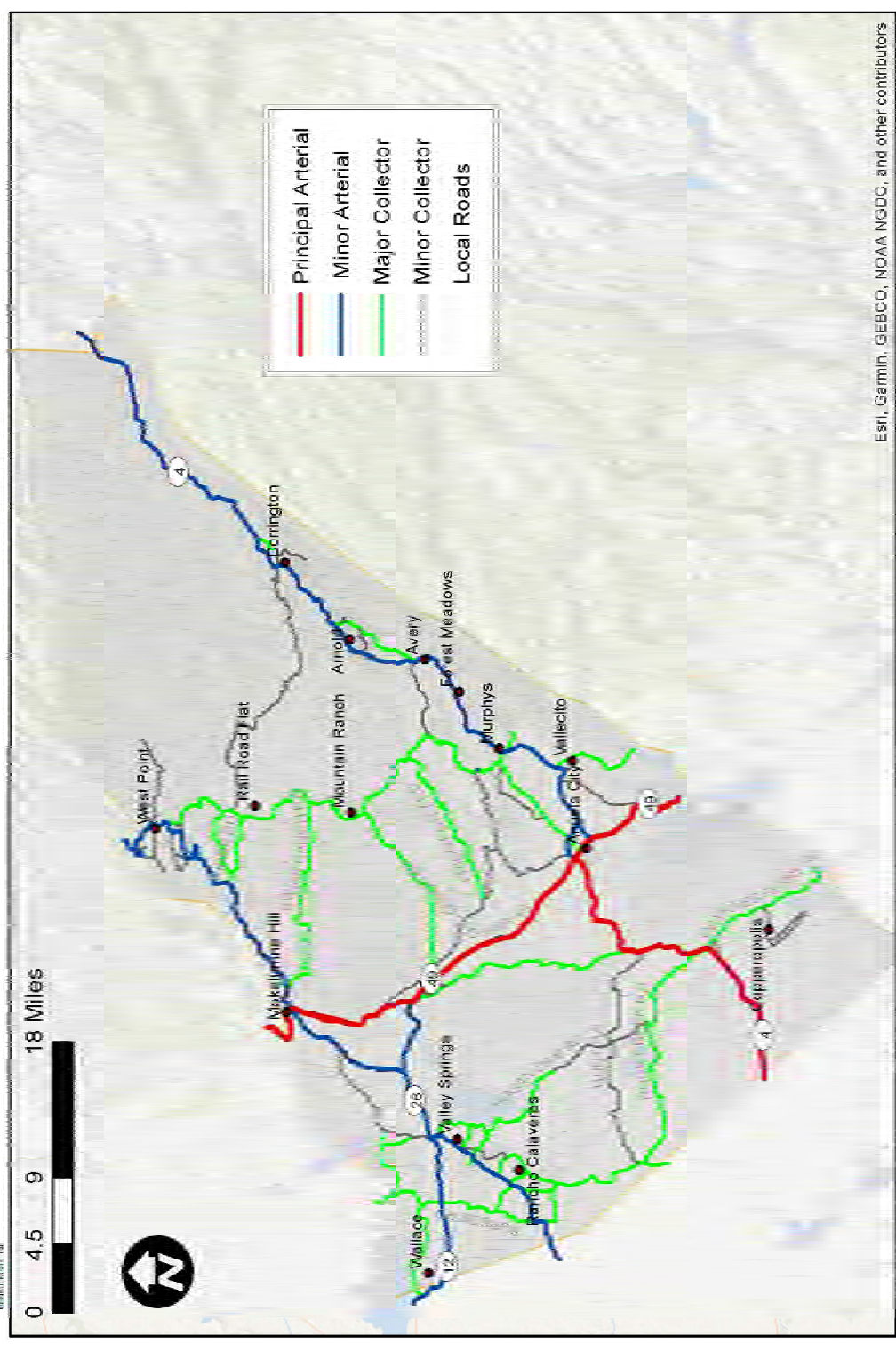
The recent *2019 Calaveras County General Plan* Conservation and Open Space Element identified the following two policies to further preserve and support the County’s scenic resources:

- [Policy COS 5.2](#) – Maintain scenic resources along designated scenic highways in the County
- [Policy COS 6C](#) – Utilize the Ebbetts Pass National Scenic Byway 2013 Corridor Management Plan as guidance for review of development projects along the State Scenic Highway and National Scenic Byway

Ebbetts Pass Corridor Management Plan (2013)

The Ebbetts Pass Corridor Management Plan gathered input as to how best preserve and protect the historic region for future generations to enjoy. Through stakeholder interviews and public outreach, the plan was able to create action categories for a variety of recommendations and potential projects. The plan then sorted these recommendations into three categories: essential and achievable, desirable and

FIGURE 9
Calaveras County Roadway Classifications



Esti, Garmin, GEBCO, NOAA NGDC, and other contributors

achievable in the near term, and desirable and potentially achievable in the long term. Plan tasks deemed to be essential and achievable included actions such as supporting wayfinding and informational signage, maintaining existing management strategies, and continuing to partner with USDA Forest Service and other local agencies.

Interregional Transportation Strategic Plan

The 2015 Interregional Transportation Strategic Plan identifies 11 Strategic Interregional Corridors throughout California, which have a high volume of freight movement and significant recreation tourism. SR 49 has been identified as an important connection to the surrounding Interstate system including US 80 and US 50. The plan also identified major transportation facilities in the San Francisco Bay Area, Sacramento, Northern Nevada Interregional area. SR 49 was determined to be of medium priority for long-term projects related to fix-it-first policies to function as an alternative to I-80.

2020 Interregional Transportation Improvement Program (ITIP)

The 2020 Interregional Transportation Improvement Program (ITIP) is a program of projects funded through the state gas tax. The ITIP has three simple objectives:

1. Improve state highways
2. Improve the intercity passenger rail system
3. Improve interregional movement of people, vehicles and goods

While SR 49 is identified to serve as an alternative route to I-80 during highway closures caused by weather, accidents, or construction, there were no specific projects listed in the ITIP for SR 49.

Annual State Highway Traffic Volumes

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

As shown in Table 7 and 8 as well as Figure 10, the highest AADT volumes on the Calaveras County “local” state route network in 2018 was observed along SR 26 at Valley Springs / La Contenta Country Club Entrance on SR 26 (11,900 vehicles per day) and at Hogan Dam Road (11,500 vehicles per day). Areas of relatively low traffic are near the communities of Mokelumne Hill, Glencoe and West Point on SR 26 with less than 2,000 cars per day. As shown in the Goods Movement section the proportion of traffic which represents trucks is as high as 23 percent on SR 49 in Angels Camp.

Table 7 and 8 also presents historic AADT data for roadways in the county going back to 2008. Generally, traffic volumes have decreased on Calaveras County State Highways over the past nine years, on average 1.4 percent annually. The largest decrease in traffic volumes was experienced on SR 49 in Angels Camp at

TABLE 7: Calaveras County State Highway Daily Traffic Volumes 2008 to 2018 -- SR 4 and SR 12

Location	Change in Traffic Volumes										Average Annual			
											Percent Change			
	2008-2018		2013-2018		2017		2016		2015		2014		2013-18	
	#	%	#	%	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
State Route 4														
Stanislaus-Calaveras County Line	2,800	58.3%	100	1.3%	7,600	7,600	7,600	7,600	7,500	7,500	7,500	7,500	7,500	4,800
Hodson Road/Reeds Turnpike, West	100	1.9%	100	0.4%	5,400	5,400	5,400	5,400	5,300	5,300	5,300	5,300	5,300	5,300
Hodson Road/Reeds Turnpike, East	-950	-17.9%	100	2.4%	4,350	4,350	4,350	4,350	4,250	4,250	4,250	4,250	4,250	5,300
O Byrnes Ferry Road, West	-850	-16.0%	100	2.3%	4,450	4,450	4,450	4,450	4,350	4,350	4,350	4,350	4,350	5,300
O Byrnes Ferry Road, East	-1,900	-32.2%	100	2.6%	4,000	4,000	4,000	4,000	3,900	3,900	3,900	3,900	3,900	5,900
Vallecito, West	2,800	54.9%	200	2.6%	7,900	7,900	7,900	7,900	7,700	7,700	7,700	7,700	7,700	5,100
Vallecito, East	1,100	16.4%	200	2.6%	7,800	7,800	7,800	7,800	7,600	7,600	7,600	7,600	7,600	6,700
Big Trees/Tom Bell Roads, West	-2,000	-22.2%	100	1.4%	7,000	7,000	7,000	7,000	6,900	6,900	6,900	6,900	6,900	9,000
Big Trees/Tom Bell Roads, East	-2,200	-24.4%	100	1.5%	6,800	6,800	6,800	6,800	6,700	6,700	6,700	6,700	6,700	9,000
Avery, Moran Road West Junction, West	-2,400	-24.2%	100	1.4%	7,500	7,500	7,500	7,500	7,400	7,400	7,400	7,400	7,400	8,900
Avery, Moran Road West Junction, East	-2,200	-24.7%	100	1.5%	6,700	6,700	6,700	6,700	6,600	6,600	6,600	6,600	6,600	8,900
White Pines Road, West	-3,600	-32.7%	100	1.4%	7,400	7,400	7,400	7,400	7,300	7,300	7,300	7,300	7,300	11,000
White Pines Road, East	-800	-10.5%	100	1.5%	6,800	6,800	6,800	6,800	6,700	6,700	6,700	6,700	6,700	7,600
Moran Road East Junction, West	-800	-11.8%	100	1.7%	6,000	6,000	6,000	6,000	5,900	5,900	5,900	5,900	5,900	6,800
Moran Road East Junction, East	-400	-11.0%	50	1.6%	3,250	3,250	3,250	3,250	3,200	3,200	3,200	3,200	3,200	3,650
Big Trees State Park, West	-950	-26.0%	50	1.9%	2,700	2,700	2,700	2,700	2,650	2,650	2,650	2,650	2,650	3,650
Big Trees State Park, East	-900	-26.1%	50	2.0%	2,550	2,550	2,550	2,550	2,500	2,500	2,500	2,500	2,500	3,450
Dorrington, West	-900	-24.7%	50	1.9%	2,750	2,750	2,750	2,750	2,700	2,700	2,700	2,700	2,700	3,650
Dorrington, East	-900	-25.0%	50	3.1%	1,650	1,650	1,650	1,650	1,600	1,600	1,600	1,600	1,600	2,200
Meko Drive, West	-450	-24.3%	50	3.7%	1,400	1,400	1,400	1,400	1,350	1,350	1,350	1,350	1,350	1,850
Meko Drive, East	-450	-23.1%	50	3.4%	1,500	1,500	1,500	1,500	1,450	1,450	1,450	1,450	1,450	1,950
Big Meadows, West	-650	-37.1%	50	4.8%	1,100	1,100	1,100	1,100	1,050	1,050	1,050	1,050	1,050	1,750
Big Meadows, East	-650	-39.4%	10	1.0%	1,000	1,000	1,000	1,000	990	990	990	990	990	1,650
Calaveras-Alpine County Line	-50	-4.0%	50	4.3%	1,200	1,200	1,200	1,200	1,150	1,150	1,150	1,150	1,150	1,250
State Route 12														
San Joaquin-Calaveras County Line	-1,500	-21.7%	-600	-10.0%	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	6,900
Wallis, Comanche Parkway, West	-500	-8.5%	-600	-10.0%	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,900
Wallis, Comanche Parkway, East	-1,300	-20.6%	-500	-9.1%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	6,300
Burson, Burson Road, West	-1,050	-18.1%	-550	-10.4%	4,750	4,750	4,750	4,750	4,750	4,750	4,750	4,750	4,750	5,800
Burson, Burson Road, East	-2,900	-34.5%	-600	-9.8%	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	8,400
Valley Springs, Pine Street, West	-2,300	-27.7%	0	0.0%	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	8,300
Valley Springs, Pine Street, East	-2,400	-27.9%	0	0.0%	6,200	6,200	6,200	6,200	6,200	6,200	6,200	6,200	6,200	8,600
Jct. Rte. 26 South, West	-2,400	-32.6%	100	1.8%	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	8,000
Jct. Rte. 26 South, East	2,400	35.3%	300	3.4%	9,200	8,800	8,800	8,800	8,800	8,800	8,800	8,800	8,800	6,800
West Junction Lime Creek Road, West	1,200	17.6%	300	3.9%	8,000	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	6,800
West Junction Lime Creek Road, East	1,200	17.6%	900	12.7%	8,000	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	6,800
Toyon, Jct. Rte. 26 North, West	400	5.3%	1,200	17.6%	8,000	8,000	8,000	8,000	7,700	7,700	7,700	7,700	7,700	7,600
Toyon, Jct. Rte. 26 North, East	-1,100	-14.9%	1,300	26.0%	6,300	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	7,400
San Andreas, Jct. Rte. 49	-600	-7.9%	1,000	16.7%	7,000	6,100	6,100	6,100	6,100	6,100	6,100	6,100	6,100	7,600

Source: 2008, 2013-2018 Traffic Volumes on California State Highways, Caltrans, 2020.

Note: Volume is just past the named point.

Murphys Grade Road. Over the nine year period, AADT decreased by over 60 percent or 8,000 to 10,000 cars per day, as a result of drivers using the SR 4 Angels Camp bypass. State highway sections that have

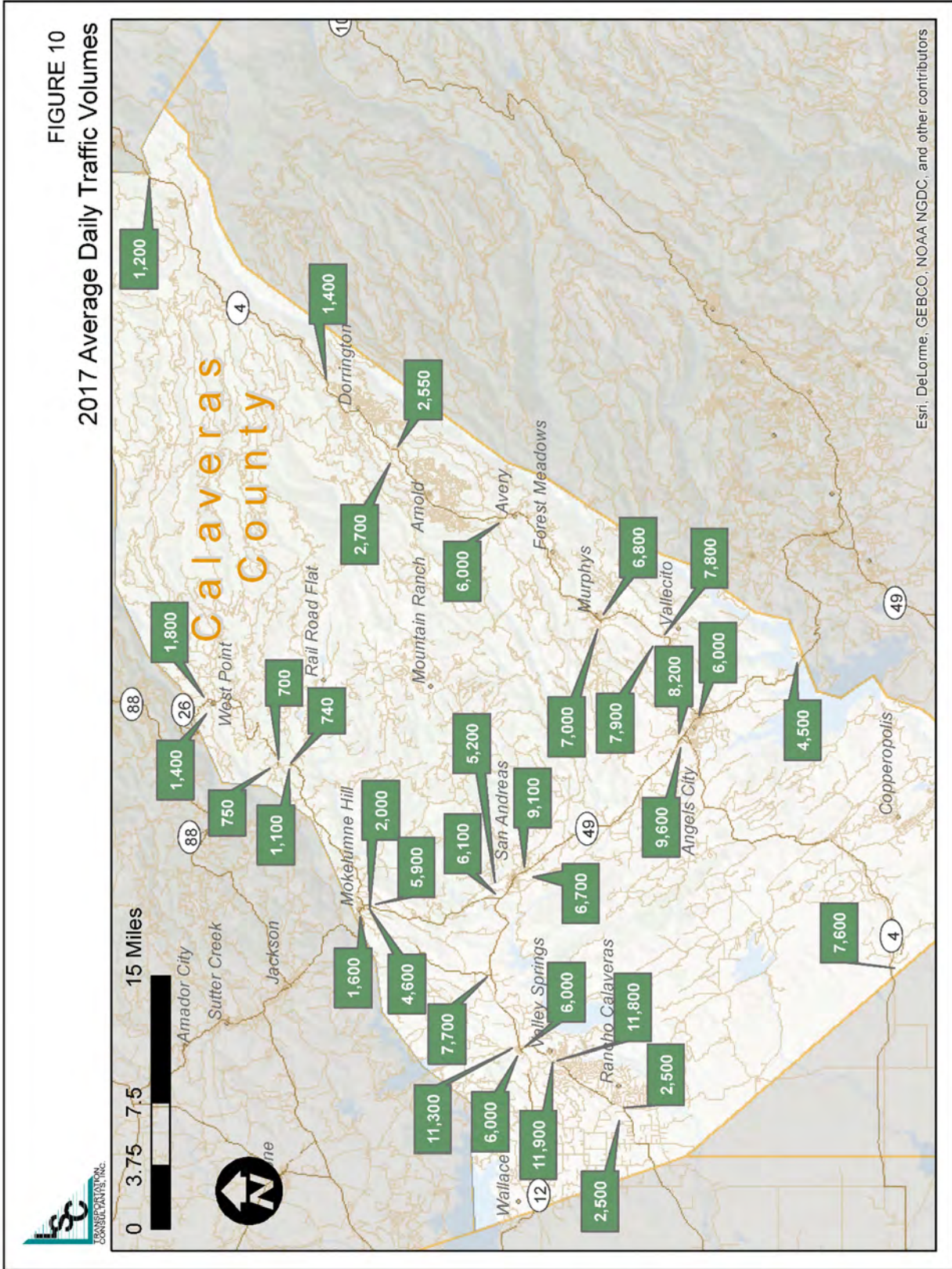
TABLE 8: Calaveras County State Highway Daily Traffic Volumes 2008 to 2018 -- SR 26 and SR 49

Location	2008	2013	2014	2015	2016	2017	2018	Change in Traffic Volumes				Average Annual	
								2008-2018		2013-2018		Percent Change	
								#	%	#	%	2008-18	2013-18
State Route 26													
San Joaquin-Calaveras County Line	4,950	4,300	4,450	4,850	5,050	5,050	5,400	450	9.1%	1,100	25.6%	0.9%	4.7%
Gregory-Milton Road, West	5,600	4,450	4,450	4,450	4,450	4,450	4,700	-900	-16.1%	250	5.6%	-1.7%	1.1%
Gregory-Milton Road, East	5,600	3,900	3,900	3,900	3,900	3,900	4,100	-1,500	-26.8%	200	5.1%	-3.1%	1.0%
Jenny Lind Road, West	4,300	3,800	3,800	2,500	2,500	2,500	2,500	-1,800	-41.9%	-1,300	-34.2%	-5.3%	-8.0%
Jenny Lind Road, East	4,900	5,300	5,300	5,700	5,700	5,700	6,250	1,350	27.6%	950	17.9%	2.5%	3.4%
Silver Rapids Road, West	6,800	8,600	8,600	6,800	6,800	6,800	7,400	600	8.8%	-1,200	-14.0%	0.8%	-3.0%
Silver Rapids Road, East	7,600	8,900	8,900	8,500	8,500	8,500	8,500	900	11.8%	-400	-4.5%	1.1%	-0.9%
La Contenta Country Club Entrance, West	11,000	10,700	10,700	11,900	11,900	11,900	11,800	800	7.3%	1,100	10.3%	0.7%	2.0%
La Contenta Country Club Entrance, East	10,000	8,600	8,600	11,800	11,800	11,800	11,900	1,900	19.0%	3,300	38.4%	1.8%	6.7%
Hogan Dam Road, West	10,500	11,800	11,800	11,500	11,500	11,500	11,500	1,000	9.5%	-300	-2.5%	0.9%	-0.5%
Hogan Dam Road, East	11,100	12,000	12,000	10,800	10,800	10,800	10,800	-300	-2.7%	-1,200	-10.0%	-0.3%	-2.1%
Valley Springs, West Jct. Rte. 12	11,300	10,900	10,900	11,300	11,300	11,300	11,400	100	0.9%	500	4.6%	0.1%	0.9%
Toyon, East Jct. Rte. 12	1,800	1,900	1,900	1,650	1,650	1,650	1,700	-100	-5.6%	-200	-10.5%	-0.6%	-2.2%
Paloma Road, West	1,800	1,700	1,700	1,650	1,650	1,650	1,700	-100	-5.6%	0	0.0%	-0.6%	0.0%
Paloma Road, East	2,200	1,650	1,650	1,800	1,800	1,800	1,900	-300	-13.6%	250	15.2%	-1.5%	2.9%
Mokelumne Hill, Jct. Rte. 49, West	2,050	1,500	1,500	1,600	1,600	1,600	1,700	-350	-17.1%	200	13.3%	-1.9%	2.5%
Mokelumne Hill, Jct. Rte. 49, East	2,150	1,950	1,950	2,000	2,000	2,000	2,350	200	9.3%	400	20.5%	0.9%	3.8%
Ridge Road, West	1,300	1,350	1,350	1,100	1,100	1,100	1,100	-200	-15.4%	-250	-18.5%	-1.7%	-4.0%
Ridge Road, East	1,550	900	900	740	740	740	740	-810	-52.3%	-160	-17.8%	-7.1%	-3.8%
Glenco, Associated Office Road, West	1,650	660	660	750	750	750	750	-900	-54.5%	90	13.6%	-7.6%	2.6%
Glenco, Associated Office Road, East	720	560	560	700	700	700	700	-20	-2.8%	140	25.0%	-0.3%	4.6%
Railroad Flat Road, West	720	700	700	730	730	730	730	10	1.4%	30	4.3%	0.1%	0.8%
Railroad Flat Road, East	1,700	1,700	1,700	1,550	1,550	1,550	1,550	-150	-8.8%	-150	-8.8%	-0.9%	-1.8%
Winton Road, West	1,950	1,700	1,700	1,400	1,400	1,400	1,400	-550	-28.2%	-300	-17.6%	-3.3%	-3.8%
Winton Road, East	1,950	1,900	1,900	1,800	1,800	1,800	1,800	-150	-7.7%	-100	-5.3%	-0.8%	-1.1%
Main Street, West	1,750	1,900	1,900	1,350	1,350	1,350	1,350	-400	-22.9%	-550	-28.9%	-2.6%	-6.6%
Main Street, East	2,100	2,000	2,000	1,650	1,650	1,650	1,650	-450	-21.4%	-350	-17.5%	-2.4%	-3.8%
Calaveras-Amador County Line	1,750	1,550	1,550	1,550	1,550	1,550	1,550	-200	-11.4%	0	0.0%	-1.2%	0.0%
State Route 49													
Tuolumne-Calaveras County Line	5,600	5,600	5,500	4,500	4,500	4,500	4,500	-1,100	-19.6%	-1,100	-19.6%	-2.2%	-4.3%
Angels Camp, Centennial Road, South	5,600	5,400	6,900	5,500	5,500	5,500	5,500	-100	-1.8%	100	1.9%	-0.2%	0.4%
Angels Camp, Centennial Road, North	7,700	7,400	7,000	7,000	7,000	7,000	7,000	-700	-9.1%	-400	-5.4%	-0.9%	-1.1%
Angels Camp, South Jct. Rte. 4, South	9,100	9,300	9,300	9,300	9,300	9,300	9,300	200	2.2%	0	0.0%	0.2%	0.0%
Angels Camp, South Jct. Rte. 4, North	14,500	13,100	13,100	6,000	6,000	6,000	6,000	-8,500	-58.6%	-7,100	-54.2%	-8.4%	-14.5%
Angels Camp, Murphys Grade Road, South	15,500	14,000	14,000	5,800	5,800	5,800	5,800	-9,700	-62.6%	-8,200	-58.6%	-9.4%	-16.2%
Angels Camp, Murphys Grade Road, North	14,800	15,900	15,900	5,650	5,650	5,650	5,650	-9,150	-61.8%	-10,250	-64.5%	-9.2%	-18.7%
Angels Camp, North Jct. Rte. 4, South	11,000	9,600	9,600	9,600	9,600	9,600	9,600	-1,400	-12.7%	0	0.0%	-1.4%	0.0%
Angels Camp, North Jct. Rte. 4, North	8,700	8,200	8,200	8,200	8,200	8,200	8,200	-500	-5.7%	0	0.0%	-0.6%	0.0%
North Angels Camp, Copello Drive, South	7,400	6,800	7,700	7,700	7,700	7,700	7,700	300	4.1%	900	13.2%	0.4%	2.5%
North Angels Camp, Copello Drive, North	6,600	6,600	7,100	7,100	7,100	7,100	7,100	500	7.6%	500	7.6%	0.7%	1.5%
Fricot Road, South	6,100	6,500	6,800	6,800	6,800	6,800	6,800	700	11.5%	300	4.6%	1.1%	0.9%
Fricot Road, North	6,500	6,500	6,600	6,600	6,600	6,600	6,600	100	1.5%	100	1.5%	0.2%	0.3%
San Andreas, Mountain Ranch Road, South	7,300	7,200	6,700	6,700	6,700	6,700	6,700	-600	-8.2%	-500	-6.9%	-0.9%	-1.4%
San Andreas, Mountain Ranch Road, North	10,500	10,500	9,100	9,100	9,100	9,100	9,100	-1,400	-13.3%	-1,400	-13.3%	-1.4%	-2.8%
San Andreas, Main Street, South	11,600	11,100	11,100	11,100	11,100	11,100	11,100	-500	-4.3%	0	0.0%	-0.4%	0.0%
San Andreas, Main Street, North	10,800	10,900	10,900	10,900	10,900	10,900	10,900	100	0.9%	0	0.0%	0.1%	0.0%
Jct. Rte. 12 West, South	9,000	8,000	9,300	9,300	9,300	9,300	9,300	300	3.3%	1,300	16.3%	0.3%	3.1%
Jct. Rte. 12 West, North	4,300	4,500	4,400	4,400	4,400	5,200	5,900	1,600	37.2%	1,400	31.1%	3.2%	5.6%
Gold Strike Road, South	4,300	4,300	4,300	4,600	4,600	5,400	6,100	1,800	41.9%	1,800	41.9%	3.6%	7.2%
Gold Strike Road, North	4,900	4,900	4,900	4,900	4,900	4,900	5,500	600	12.2%	600	12.2%	1.2%	2.3%
Mokelumne Hill, Jct. Rte. 26, South	4,100	4,750	4,900	4,600	4,600	5,250	5,250	1,150	28.0%	500	10.5%	2.5%	2.0%
Mokelumne Hill, Jct. Rte. 26, North	6,100	6,100	6,000	5,900	5,900	5,900	6,600	500	8.2%	500	8.2%	0.8%	1.6%
Stockton Hill Road, South	5,600	5,600	5,600	6,300	6,300	6,300	6,300	700	12.5%	700	12.5%	1.2%	2.4%
Stockton Hill Road, North	5,600	5,600	5,600	6,300	6,300	6,300	6,300	700	12.5%	700	12.5%	1.2%	2.4%
Calaveras-Amador County Line	5,900	5,800	5,800	7,100	7,100	7,100	7,100	1,200	20.3%	1,300	22.4%	1.9%	4.1%

Source: 2008, 2013-2018 Traffic Volumes on California State Highways, Caltrans, 2020.
 Note: Volume is just past the named point.

seen increases in traffic over the past nine years include: SR 4 at the Stanislaus County line (2,800 or 58 percent increase), SR 4 in Vallecito (2,800 or 54 percent increase), SR 12 between the junction with SR26 and Lime Kiln Road (2,000 or 29.4 percent increase) and SR 26 in Valley Springs at the La Contenta Country Club (1,800 or 18 percent). Overall traffic volumes on SR 4 decreased between 2008 and 2013 but since have begun to rebound slightly in recent years. SR 12 also saw the greatest decrease in traffic volumes between 2008 and 2013 with only highway segments between Valley Springs and San Andreas rebounding between 2014 and 2018. For SR 49, generally highway segments north of Angels Camp have seen an increase in traffic volumes over the past nine years.

FIGURE 10
2017 Average Daily Traffic Volumes



Esri, DeLorme, GEBCO, NOAA NGDC, and other contributors

Level of Service

Level of Service (LOS) is used to rate a roadway segment's traffic flow characteristics. LOS serves as an indicator of roadway performance, ranging from LOS A (best conditions) to LOS F (worst conditions), and assists in determining where roadway capacity needs to be improved.

LOS of rural highways is largely determined by roadway geometry factors, such as grades, vertical and horizontal curves, and the presence of passing opportunities. In mountainous topography and particularly through canyons, roadway LOS can be relatively low, even absent substantial traffic volumes. In general, the various levels of service are defined as follows for uninterrupted flow facilities:

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

- discharged from the queue may be quite good. Nevertheless, it is the point at which arrival flow exceeds discharge flow which causes.

Calaveras County Roadway LOS

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

According to the 2018 Transportation and Circulation Element to the Calaveras County General Plan most study roadways within the county operate at LOS C or better, except for the following segments:

- [Murphys Grade Road](#) – SR 4 to SR 49: LOS D
- [SR 4](#) – Allen Lane to Lakemont Drive: LOS D
- [SR 12](#) – Burson Road to SR 26: LOS D
- [SR 26](#) – Silver Rapids Road to SR 12: LOS D
- [SR 49](#) – North of Pool Station Road to North of Gold Oak Road: LOS D

For Calaveras County roadways, acceptable LOS is defined by Policy C 2.2 of the General Plan. Per the General Plan, LOS C or better is acceptable for County-maintained roadway outside of Community Areas. For County-maintained roadways within Community Areas (as indicated per the General Plan Land Use map), the policy establishes LOS D or better as acceptable. For state highways, acceptable LOS is defined by the applicable Caltrans Transportation Concept Report (TCR). For SR 4, SR 12, and SR 49, concept LOS is “C” is considered acceptable. For SR 26, the concept LOS is “D.”

Traffic Volume and LOS Forecasts

The Transportation and Circulation Element of the *General Plan* (2018) forecasted future LOS for both the Market Level 2035 and General Buildout scenario. Table 9, presents PM Peak Hour traffic volume and LOS projections for existing Market Level 2035 and General Plan Buildout conditions on state highway segments which either do not currently meet the concept LOS “C” or will no longer meet the concept LOS “C” in the future. These roadway segments are concentrated from Angels Camp to the south, Arnold and SR 26 west of Valley Springs. Appendix E graphically presents LOS in Calaveras County for existing conditions, Market Level 2035 and General Plan Buildout.

For County maintained roadways LOS for the following roadway segments will worsen to LOS D by General Plan Buildout during the PM Peak Hour. However, this is still within the LOS standard outlined within the Calaveras County General Plan:

TABLE 9: PM Peak Hour State Highway Roadway Segment Capacity Forecast - 2035

Roadway	Segment	Existing		Market Level 2035		General Plan Buildout	
		Volume	LOS	Volume	LOS	Volume	LOS
SR 4	Vallecito Road to Kurt Drive	337	C	NA	NA	510	D
	Allen Ln. to Broadview Ln.	822	D	1,140	C	1,190	C
	Broadway Ln to Lakemont Dr.	505	D	680	C	820	C
	Lakemont Dr. to Henry Dr.	520	C	650	D	790	D
	Henry Dr. to Sierra Parkway	421	C	NA	NA	470	D
SR 12	Burson Rd. to SR 26	524	D	730	C	950	C
	SR 26 to SR 49	584	C	NA	NA	1,210	D
SR 26	County Line to Silver Rapids Rd.	409	C	490	D	650	D
	Silver Rapids Rd. to SR 12	657	D	1,090	C	1,280	C
SR 49	Pool Station Rd to Gold Oak Rd.	522	D	620	C	690	D
	Gold Oak Rd. to Mountain Ranch Rd.	522	C	NA	NA	690	D
	Dogtown Road to SR 4 (W)	570	C	NA	NA	700	D
	SR 4 to Murphys Grade Rd	664	D	760	D	760	D
	Stanislaus Ave. to Mark Twain Rd.	787	D	790	D	790	D
	Mark Twain Rd. to Bret Harte Rd.	666	D	670	D	670	D
	Bret Harte Road to Vallecito Road	616	C	NA	NA	730	D
SR 4 (S) to County Line	322	C	NA	NA	600	D	

Source: Calaveras County General Plan Draft EIR (2018), Fehr & Peers **Bold** = Exceeds LOS Standard

- Big Trees Road from SR 4 to Main Street
- O’Byrnes Ferry Road from Reed’s Turnpike to Countyline
- Vista Del Lago from SR 26 to Hogan Dam Road

As noted above in the transportation and land use integration section, a significant amount of development is expected to occur in the Valley Springs area over the next 20 years. This will impact SR 26, SR 12 and Vista Del Lago.

Vehicle-Miles of Travel

With the passage of Senate Bill 743, California transportation policies (including the requirements of the California Environmental Policy Act) are increasingly focusing on Vehicle-Miles of Travel (VMT) as the key measure of transportation conditions. VMT is the sum of all vehicle travel throughout the county, reflecting that one vehicle traveling for one mile generates one VMT. The Calaveras County General Plan Environmental Impact Report estimated VMT for existing conditions, Market-Level 2035 Scenario and General Plan Buildout. The report estimates that countywide daily VMT will increase from 1,942,500 to 2,778,500 in 2035 and to 4,027,100 at general plan buildout. This represents a 107 percent increase at buildout. However, daily VMT per capita will decrease from 42.6 to 34.4 (19 percent decrease) due to a closer proximity of goods, jobs and services under the general plan buildout scenario. The County is in the process of developing VMT thresholds to be used to determine impacts from land use development per SB 743.

Traffic Collisions

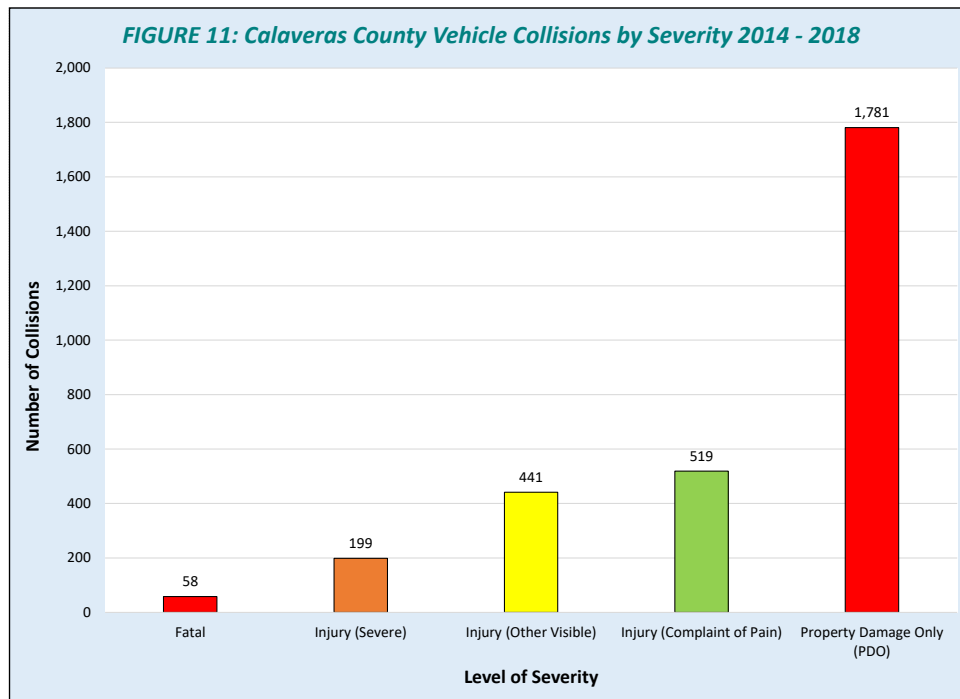
Automobile, bicycle, and pedestrian crash data from California Highway Patrol’s Statewide Integrated Traffic Record System (SWITRS) and Transportation Injury Mapping System (TIMS) databases for the four year period between 2014 and 2018 was reviewed. As shown in Table 10 and Figure 11, there were a total of 1,217 injury crashes. Additionally, 1,781 “Property Damage Only” crashes occurred during the same time period. Roughly 1.9 percent of the total crashes resulted in a fatality. Figure 12 graphically displays all types of injury crashes recorded between 2014 and 2018. The figure shows that injury crashes and fatalities occur on all state route and in and around most Calaveras County communities. Table 11

TABLE 10: Vehicle Collisions by Severity

Collision Severity	Count	%
Fatal	58	1.9%
Injury (Severe)	199	6.6%
Injury (Other Visible)	441	14.7%
Injury (Complaint of Pain)	519	17.3%
Property Damage Only (PDO)	1,781	59.4%
Total Serious Collisions	2,998	

Source: UC Berkeley TIMS and SWITRS, 2014-2018

FIGURE 11: Calaveras County Vehicle Collisions by Severity 2014 - 2018



depicts injury crashes by type, indicating that the greatest proportion of crashes consisted of the motorist hitting an object in the road (41 percent), followed by 18.1 percent overturning, and 11.8 percent broadsided by another vehicle. This is indicative of a rural area with two-lane highways.

TABLE 11: Serious Vehicle Collisions by Type

Type of Collision	Count	%
Hit Object	499	41.0%
Overturned	220	18.1%
Broadside	143	11.8%
Rear End	142	11.7%
Head-On	96	7.9%
Sideswipe	60	4.9%
Other	32	2.6%
Vehicle/Pedestrian	23	1.9%
Not Stated	2	0.2%
Total Serious Collisions	1,217	100.0%

Source: UC Berkeley TIMS and SWITRS, 2014-2018. Excludes crashes that resulted in property damage only.

Pavement Conditions

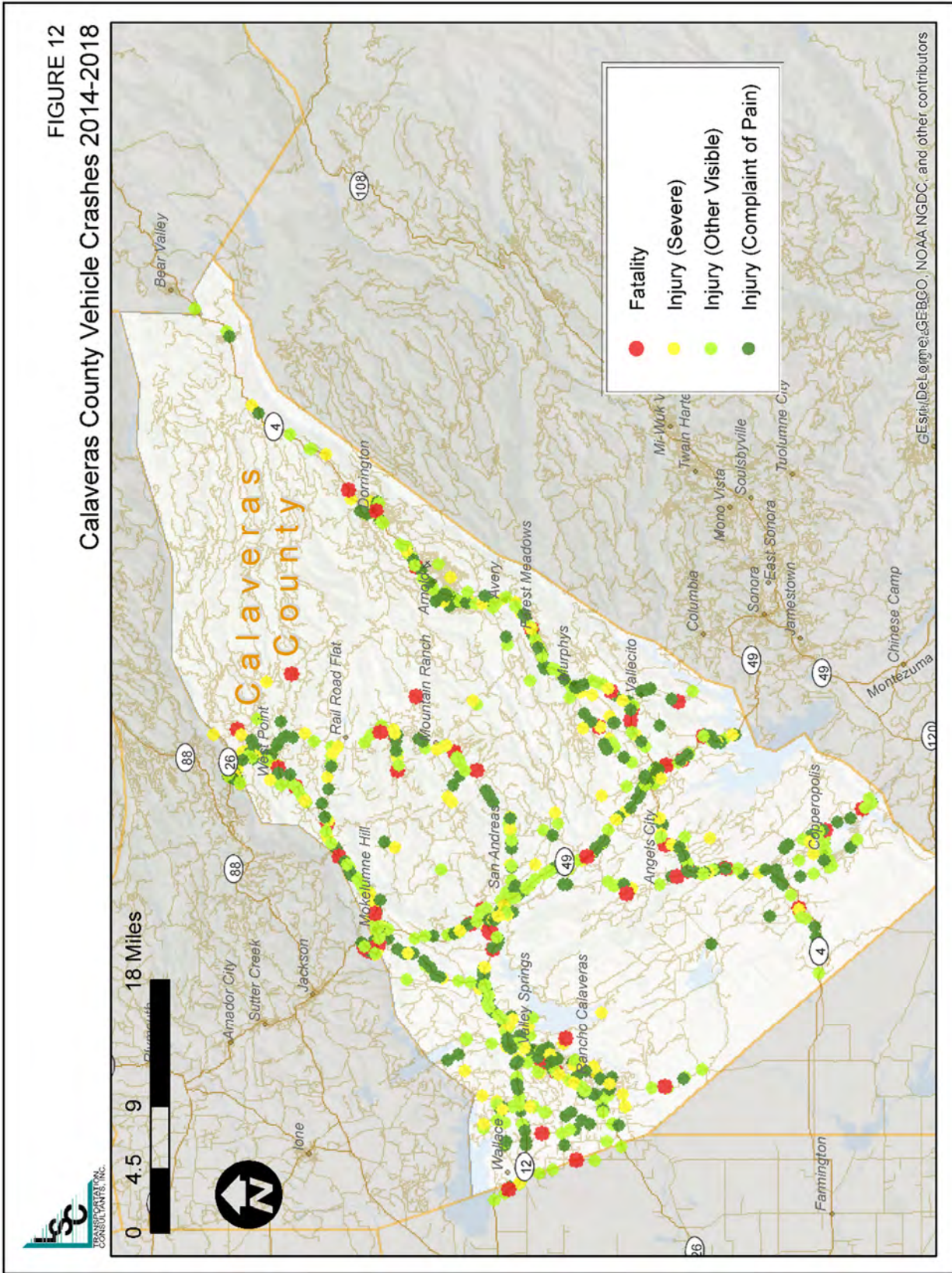
In 2019, CCOG hired Nichols Consulting Engineers to analyze roadway pavement conditions and prioritize pavement projects for both Angels Camp and Calaveras County. In order to update the County and City of Angels Camp Pavement Management Program (PMP), the firm performed condition surveys and inventory of all paved roads, including verification of various surface types.

On a scale of 0 to 100, where a new road would have a Pavement Condition Index (PCI) of 100 and a failed road of less than 10, the overall average PCI for Calaveras County is “fair”, bordering “poor” at 51. Of the total County road network, 19.8 percent is in “Good” condition, 28.3 percent in “Fair” condition, 40.3 percent in “Poor” condition, and 11.6 percent in “Failed” condition. Appendix F graphically presents pavement conditions on County roadways.

As of 2019, Angels Camp had a PCI rating of 70, or “good”. Over half of the Angel Camp’s street network is in “Good” condition, approximately one-third are in “Fair” condition, 10.6 percent are in “Poor” condition, and 1.5 percent are in “Failed” condition. Appendix F graphically presents pavement conditions on City streets.

NCE recommended that Calaveras County allocate roughly \$221.9 million over the next twenty years for roadway repair to increase the PCI of the collectors and significant roads to 70 and increase the PCI of the residential streets to 60, thus bringing the overall network to a PCI of 65 by 2039. This will also stabilize the deferred maintenance and significantly increase the portion of the network in “Good” condition. Angels Camp’s level of spending on roadway repair would need to be \$5.5 million over the next ten years in order to improve the condition of the network. This would bring the PCI for collectors above 70 while simultaneously maintaining the residential at an average PCI of 70 throughout the analysis period.

FIGURE 12
 Calaveras County Vehicle Crashes 2014-2018



Summary of Roadway Needs and Issues

In Calaveras County, roadways are the most commonly used transportation facility. The following summarizes roadway related needs and issues garnered through the review of existing conditions and public input:

- Pavement conditions on Calaveras County roadways are “fair”. A significant investment in roadway maintenance and repair will be required over the next 20 years;
- Traffic volumes in the Valley Springs area will increase significantly over the next 20 years as development occurs;
- Many segments of SR 49 will have LOS “D” congestion at buildout of the Calaveras County General Plan;
- Crash data from 2014 to 2018 reveals that crashes are spread fairly evenly across the state highway system. The greatest proportion of crashes involved hitting an object;
- Although VMT will increase by 30 percent over the next 15 years, VMT per capita will decrease at buildout of the general plan;
- Substandard curves on SR 4 west of Angels Camp (Wagon Trail) have led to multiple accidents and four fatalities since October 2019;
- Public input indicated roadway repairs are needed on local roads, particularly in Arnold, safety issues existing on the Wagon Trail segment of SR 4, more passing lanes and wider shoulders on state highways.

TRANSIT SERVICES

Public transit services provide mobility to Calaveras County residents, including access to important medical, recreational, social, educational and economic services and opportunities, many of which require travel outside of the county. However, providing effective and efficient public transit in Calaveras is a challenge due to a low population density, rugged geography and limited funding. A discussion of public transit operators in Calaveras County follows.

Calaveras Connect

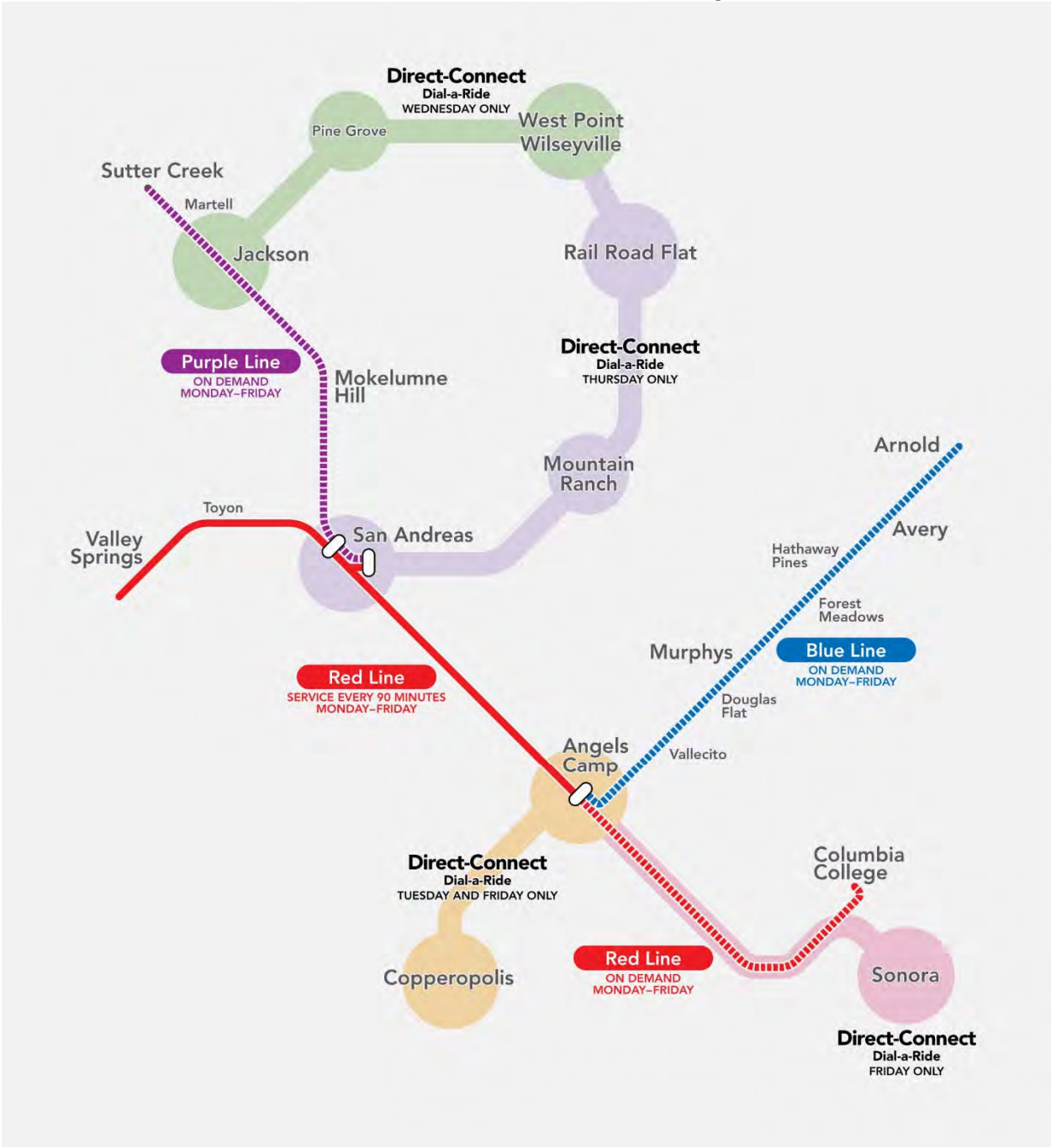
The Calaveras Transit Agency provides the only public transportation service in Calaveras County, called Calaveras Connect (previously Calaveras Transit). Operations are contracted with Paratransit Services. Prior to the pandemic Calaveras Connect provided five deviated fixed routes to Calaveras County residents. Three-quarter mile deviations were available. Services are generally available Monday through Friday between 5:30 AM and 9:00 PM with a seasonal Saturday route available between 9:45 AM and 7:30 PM. The following provides a brief description of each Calaveras Connect route. A transit map is displayed as Figure 13, showing the following routes:

- The Blue Line runs every three hours between Angels Camp and Arnold from 5:40 AM to 8:20 PM with stops in Murphys, Douglas Flat, and Avery;
- The Red Line runs every 90 minutes between Valley Springs and Sonora from 6:20 AM to 7:40 PM with stops in San Andreas and Angels Camp;
- The Purple Line runs every three hours between Rail Road Flat (On Demand), San Andreas, and Sutter Creek from 7:30 AM to 7:05 PM with stops in Mokelumne Hill and Jackson (Amador County);
- The Copper Line runs every 3 ½ hours between Angels Camp and Copperopolis between 7:00 AM and 7:45 PM;
- Green Line A and B both run on demand Monday and Wednesday only between 7:55 AM and 4:50 PM. Line A runs from West Point to San Andreas and Line B runs from Rail Road Flat to San Andreas; and
- The Saturday Hopper provides hourly service between San Andreas and Arnold from 9:45 AM to 7:25 PM with stops in Angels Camp and Murphys.

One way regular fares are available for \$2.00 with discounts for those ages 7-12 years for \$0.50, and \$1.00 for seniors, veterans, and persons with disabilities. There are ticket books available (15 one way tickets) for \$28.00 and \$14.00 for seniors, veterans, and persons with disabilities. All Day passes are \$5.25 and monthly passes are available for \$60.00 (regular fare), \$45.00 for students, and \$40.00 for seniors, veterans, and persons with disabilities. One way Saturday Hopper fares are \$3.00 (regular), \$0.50 for youth ages 7-12 years old, and \$1.50 for seniors, veterans, and persons with disabilities.

During Fiscal Year 2018-19 Calaveras Connect on average carried 147 one-way passenger trips per weekday. Annually, Calaveras Connect operated 13,672 vehicle service hours, and 362,728 vehicle service miles. Calaveras Connect services were reduced significantly in response to the COVID-19 pandemic with weekday ridership down to 50 or 60 one-way trips. Transit service has been reduced to 90 minute service on the Red Line between Valley Springs and Angels Camp with on-demand service to Columbia College. On-demand service is also available along SR 4 to Arnold and to Sutter Creek in Amador County. General public Dial-A-Ride is available one day per week to outlying communities of West Point, Rail Road Flat, Mountain Rand and Pine Grove in Amador County.

Figure 13 Calaveras Connect Routes



Inter-Regional Services

Amador Transit

Amador Transit operates six fixed route services within Amador County, including one fixed route to downtown Sacramento. Fixed route services are generally provided between 6:00 AM and 5:00 PM Monday through Friday. The Calaveras Connect Purple Line connects with Amador Transit at the Sutter Hill Transit Center in Jackson (Amador County). The Sutter Hill Transit Center is an intercity public transit connection to services in Sacramento.

Tuolumne County Transit

Tuolumne Transit operates five fixed routes serving the communities of Sonora, Tuolumne, Jamestown, Columbia, and Twain Harte. Transit services are provided between 6:30 AM and 8:00 PM Monday through Friday. The Calaveras Connect Red Line connects to Tuolumne Transit at Columbia College in Tuolumne County where Calaveras passengers can make connections to neighboring communities of Sonora and Jamestown.

Amtrak

Amtrak provides service within the San Joaquin Valley. The San Joaquins Amtrak Route runs from Bakersfield north through Visalia, Fresno, Lodi, Stockton, and Sacramento with greater connections to the San Francisco Bay Area. The San Joaquin route runs seven round trips daily, seven days a week. The closest Amtrak stations to Calaveras County are in Modesto and Stockton.

Other Alternative Transit Providers

Taxis

The following four private taxicab companies provide limited services within Calaveras County: 49er Cab Company, Amador Pioneer Cab, Copper Cab, and Murphys Taxi Service.

The Arc of Amador and Calaveras County

Established in 1971, The Arc's mission is to provide services to persons living with varying intellectual and developmental disabilities. These services include training and education in basic life and vocational skills such as cooking, applying for employment opportunities, technology use, and music. In addition, The Arc coordinates and provides transportation to local recreational activities like karaoke, movie theaters, bowling, and shopping. The Arc's transportation services are private contracted and provided by Blue Mountain Transit through an agreement with Valley Mountain Regional Center.

Area 12 Agency on Aging

The Area 12 Agency on Aging (A12AA) provides a variety of services for residents 60 years or older living within the Sierra foothill Counties of Alpine, Amador, Calaveras, Mariposa, and Tuolumne. A12AA provides in home services such as light cleaning, laundry, food preparation, and yard work for residents.

In addition to these services, they provide transportation information to seniors while also providing mileage reimbursements through the Tuolumne TRIP program in Tuolumne County.

[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](#)

Calaveras Connect passes are distributed by the Calaveras County Probation to eligible juvenile and adult offenders for probation-related appointments, work/after school community service, or 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.

[CalWORKS](#)

CalWORKS is a program that provides financial assistance 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](#)

Created in 2000, Common Ground Senior Services is a private non-profit agency assisting 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 its TRC Community Services unit.

[The Resource Connection](#)

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](#)

The Valley Mountain Regional Center (VMRC) provides services to children and adults living with developmental disabilities in Calaveras County. The organization provides services related to disability advocacy, medical assessments, behavioral intervention, and vocational training. In addition,

transportation is provided to program participants through Blue Mountain Transit for VMRC clients who also participate in ARC and WATCH programs.

Volunteer Center of Calaveras

The Volunteer Center provides volunteer transportation program for Calaveras County residents in need of rides to medical appointments, grocery shopping, post office, and other necessary trips. Volunteers are reimbursed for mileage by funds collected through private donations and Volunteer Center general funds. As of 2019, 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 120 annual trips driving a total of 2,800 miles and 240 driving hours. 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 has been providing supported living and employment training and support for individuals with intellectual disabilities for those living in both Tuolumne and Calaveras Counties since 1976. Transportation services include visits to medical appointments, work, recreational and social events.

Public Transit Needs and Issues

As the RTP includes capital improvement projects, public transit needs for this plan focus on infrastructure needs and vehicle replacement.

- First mile/last mile transportation system improvements which would support Calaveras Connect riders. This could include sidewalks or crosswalks between bus stops, neighborhoods and commercial centers
- Ensure that future state highway improvements consider the needs of public transit riders
- Aging vehicles and addressing CARB Zero Emission Vehicle requirements. This includes developing the infrastructure to support electric or hydrogen vehicles.
- Minor equipment and facilities such as improved dispatching software and a facility generator
- Planning for transit infrastructure in times when ridership is fluctuating and future levels of transit use are unknown.

NON-MOTORIZED FACILITIES

Bicycle and pedestrian facility needs have been well documented in Calaveras County. Calaveras County adopted a Regional Bicycle, Pedestrian, and Safe Routes to School Master Plan in 2015 which included an overview of existing conditions, general needs, and recommendations for projects at a countywide level. In addition, multiple community-level corridor and complete streets studies have been completed since. Non-motorized facilities encompass a wide variety of transportation improvements designed to provide safety and greater mobility for bicyclist, pedestrians, skateboards etc. For pedestrians this includes, sidewalks, crosswalks, push button signals, and curb ramps. Bicycle facilities are separated into four categories:

- Class I (Bike Path) – Provides a completely separated right-of way for bicyclists and pedestrians with cross flow by vehicles minimized
- Class II (Bike Lane) – Provides a striped lane for one-way bike travel on a street or highway
- Class III (Bike Route) – A signed route along a street or highway which provides a shared-use with other vehicles
- Class IV (Bikeway) – A bikeway separated from vehicles using grade separation, flexible posts, inflexible barriers or on-street parking.

Smaller projects such as bike racks, signage, and education programs are also considered non-motorized transportation improvements.

Existing Bicycle and Pedestrian Network

According to the *Calaveras County Regional Bicycle, Pedestrian, and Safe Routes to School Master Plan* (2015) there are currently approximately 22 miles of various bicycle paths within the County. Table 12 and Figures 14 – 16 shows the location of existing bicycle and pedestrian facilities by trail type.

Bicycle/Pedestrian Related Crashes

Bicycle and pedestrian accident data were obtained from California Highway Patrol's Statewide Integrated Traffic Record System (SWITRS) and Transportation Injury Mapping System (TIMS) databases. Table 12 shows total bicycle and pedestrian collisions by severity level. Only one fatality occurred during this four year period (near Main Street and Mayo Street south of Angels Camp) while another eight severe injury accidents occurred near State Routes running through Mokelumne Hill, Copperopolis, and Valley Springs. Figure 17 displays the location of bicycle and pedestrian conflicts with automobiles in Calaveras County. These accidents are generally focused on the SR 49 corridor. As shown, there have been more pedestrian collisions than bicycle crashes. Figure 17 clearly demonstrates a need for increased safety along SR 49 within Angels Camp and the community of San Andreas.

TABLE 12: Bicycle/Pedestrian Collisions by Severity

Collision Severity	Count	%
Fatal	1	3.0%
Injury (Severe)	8	24.2%
Injury (Other Visible)	14	42.4%
Injury (Complaint of Pain)	10	30.3%
Total Collisions	33	

Source: UC Berkeley TIMS and SWITRS, 2014-2018

Projections of Bicycle/Pedestrian Activities

It is difficult to project demand for bicycle facilities in rural areas as there is little existing survey data available. The bicycle and pedestrian commute mode split for Calaveras County is low:

- [Walk](#) – 1.8 percent
- [Bicycle](#) – 0.1 percent

Calaveras County is a typical rural county with small, dispersed communities and low density residential areas. This contributes to the low rates of active transportation to work. Within communities there is the potential to increase the walking and bicycling mode split through non-motorized facility projects. With a more continuous non-motorized network, Calaveras County residents will be more likely to walk or bike for recreation, everyday errands, or social engagements. This would increase the bicycle/pedestrian mode split but not to the level of an urbanized area.

Non-motorized Transportation Needs and Issues

There are several corridors in Calaveras County which have been deemed high priority for study and transportation improvements. These include the Main Street corridor through Angels Camp, SR 4 through Murphys, connections to Town Center in Valley Springs and Pope Street in San Andreas. Transportation needs and concerns related to non-motorized transportation in these corridors and the Calaveras County region can be summarized as follows:

- Widen shoulders on state highways to reduce conflicts between cyclists and motorists. Particular areas of concern brought up as part of public input include:
 - SR 4 from Arnold to Big Trees;
 - SR 12 in Valley Springs;
 - SR 26 in Valley Springs; and
 - SR 49 between San Andreas and Angels Camp;
- Bicycle lanes or separated bicycle paths have been requested in the following areas:
 - Arnold to Dorrington;
 - Hogan Dam Road;
 - SR 26 near Valley Springs;

- Vallecito and Red Hill Road; and
 - Murphys;
- Sidewalks along 6 mile road in Murphys;
- Gaps in sidewalk and poor bicycle facility connectivity combined with high vehicle speeds in the Angels Camp SR 49 N. Main Street Corridor;
- No shoulders, limited pedestrian facilities and high vehicle speeds limit the number of potential active transportation users in the Pope Street Corridor in San Andreas despite a relatively short distance between residences and schools;
- Safe Routes to School for the Valley Springs Elementary School;
- Complete streets improvements throughout the commercial core area in Murphys along SR 4 are needed to address limited bicycle and pedestrian facilities, a high proportion of senior residents and the proximity of an Elementary School; and
- Limited bicycle and pedestrian facilities combined with heavy truck traffic and projected future growth in all traffic in the SR 49 corridor in San Andreas.

FIGURE 14
Calaveras County Bicycle Facilities

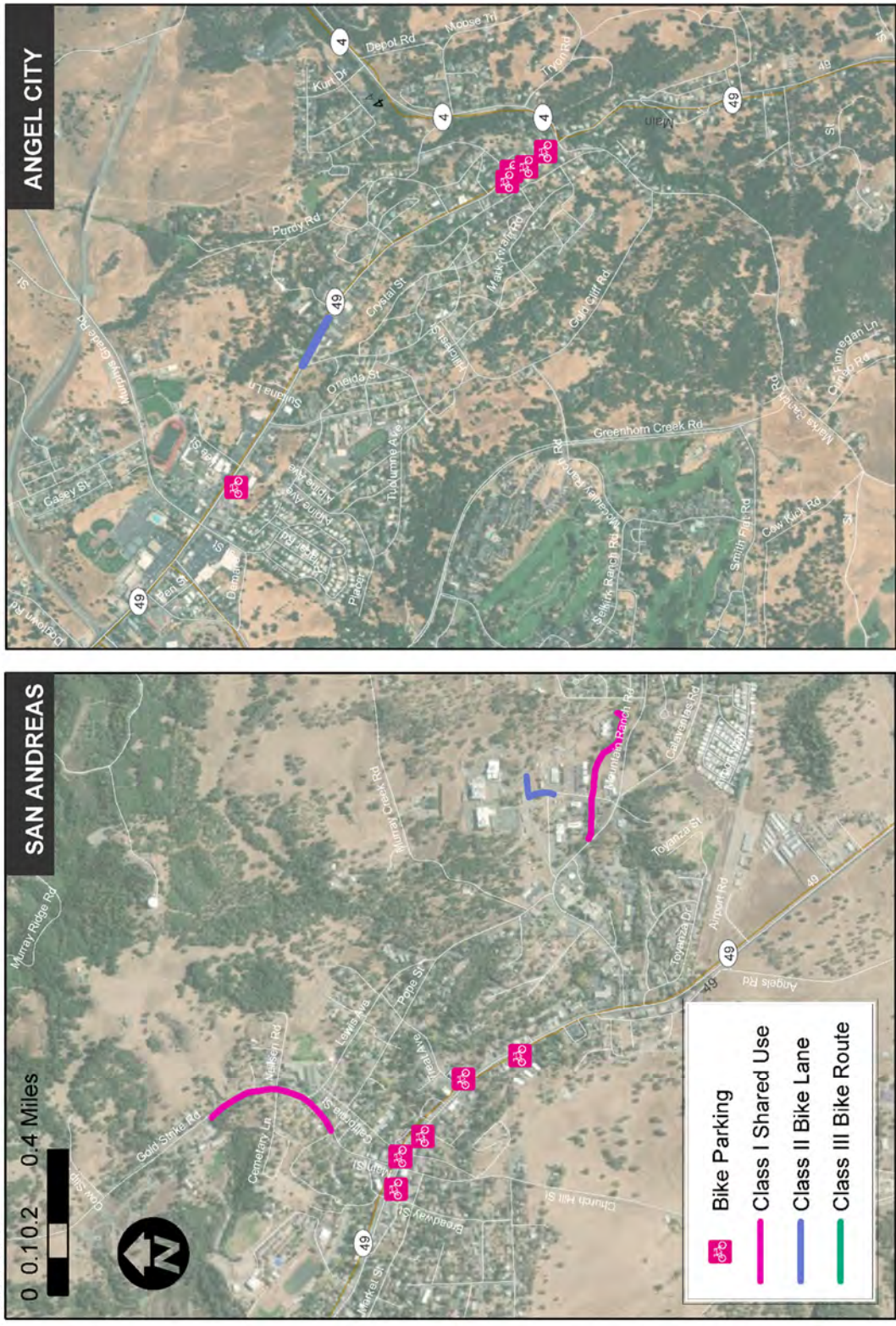


FIGURE 15
Calaveras County Bicycle Facilities

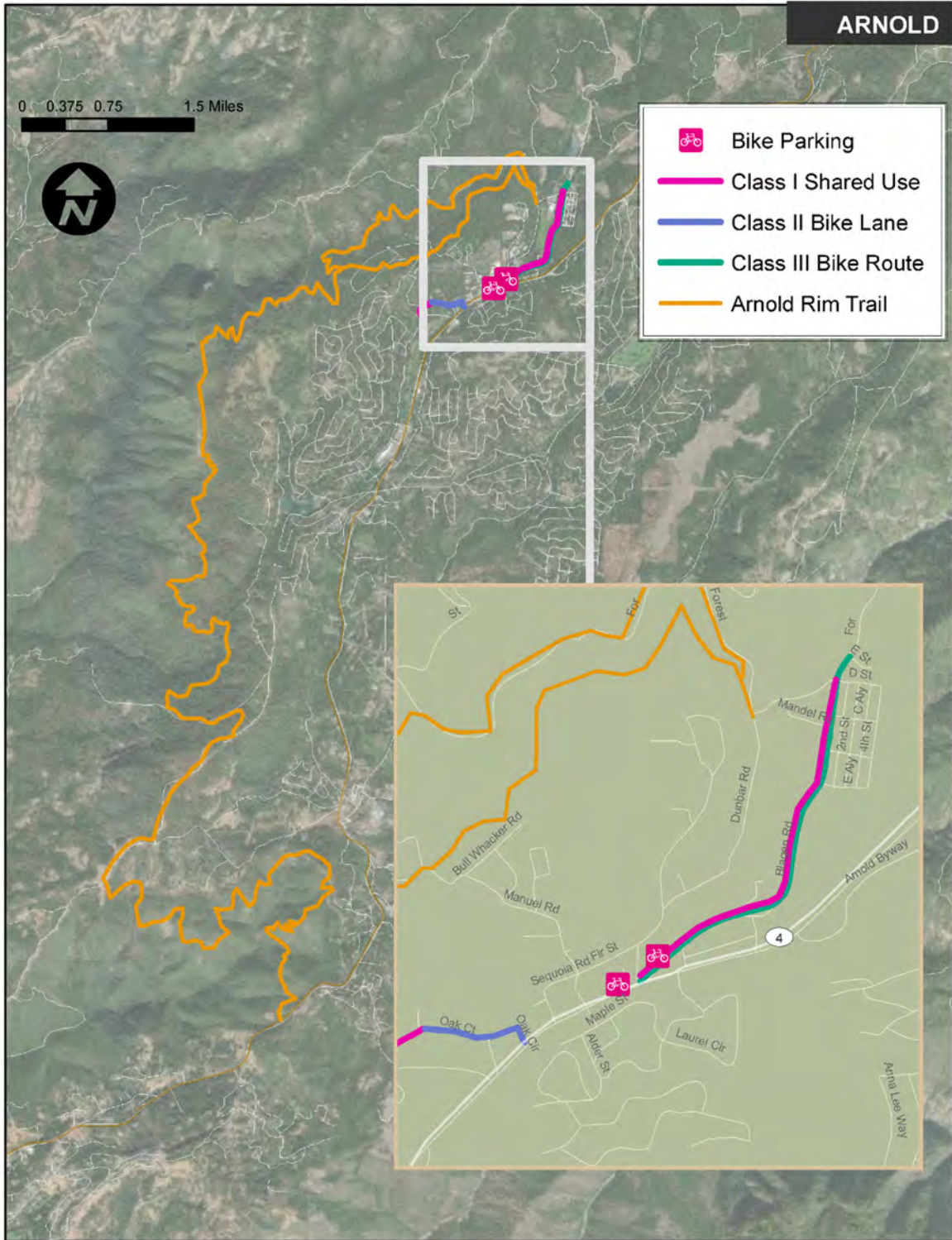


FIGURE 16
Calaveras County Bicycle Facilities

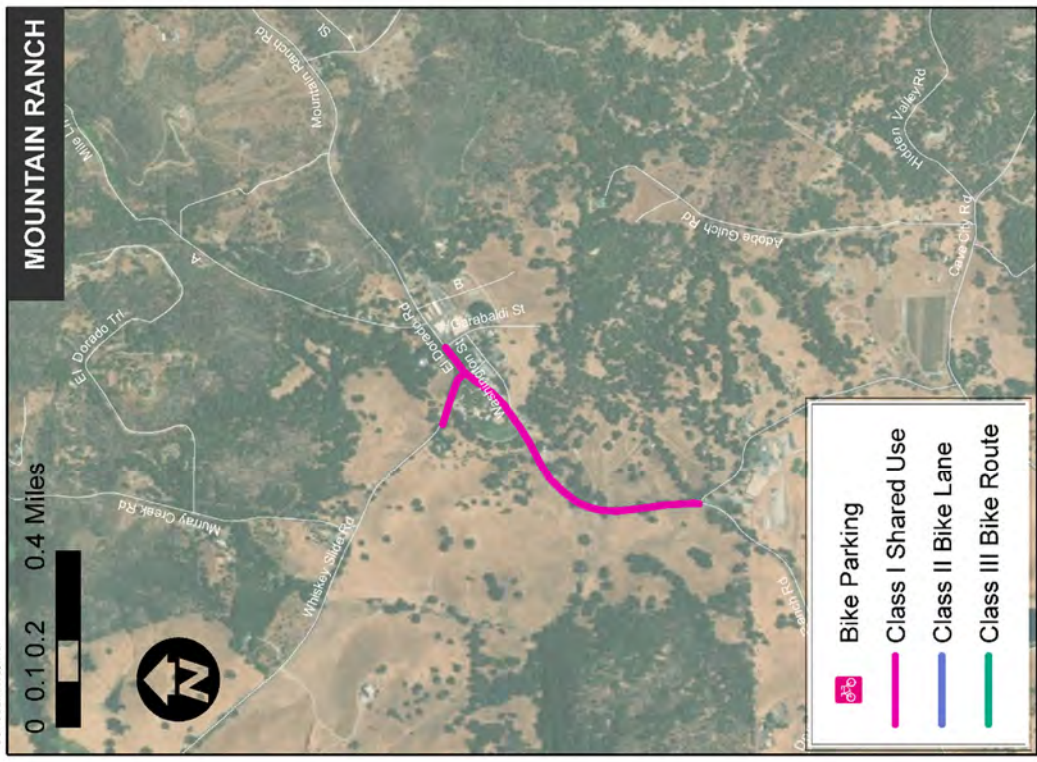
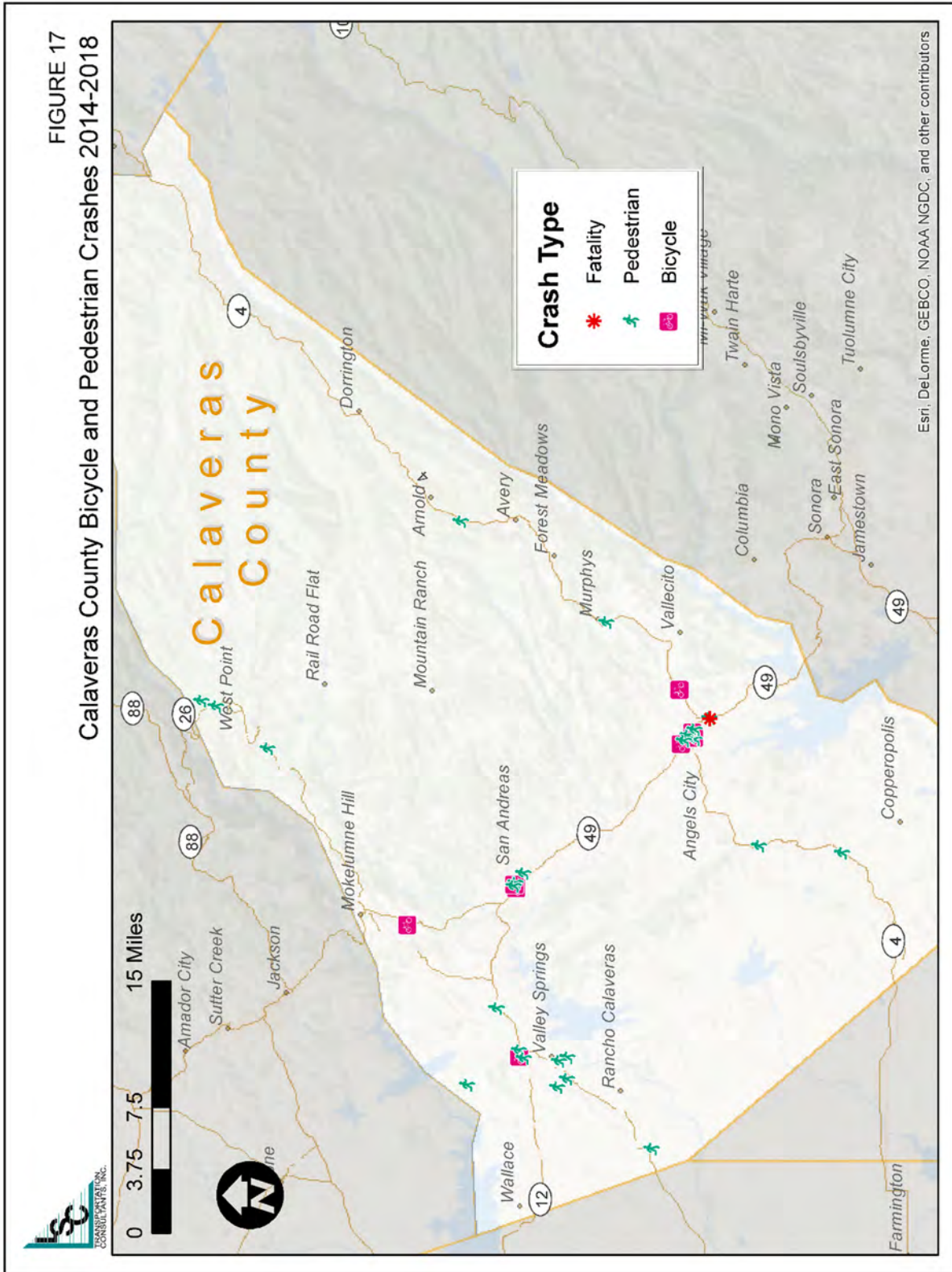


FIGURE 17
 Calaveras County Bicycle and Pedestrian Crashes 2014-2018



Esri, DeLorme, GEBCO, NOAA NGDC, and other contributors

AVIATION

Mary Rasmussen Field, south of San Andreas, is the only aviation facility located within 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 and operated by Calaveras County Department of Public Works. 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 Maury Rasmussen Field, or 88 average daily operations in 2018. Twenty-four aircraft are based at this field. Mary Rasmussen Field is on the National Plan Integrated Airport Systems (NPIAS) under the Federal Aviation Administration (FAA). This makes the airport eligible for federal funding under the Airport Improvement Program.

Aviation Capital Improvement Needs and Issues

Demand for aviation activity is not expected to increase in Calaveras County. Maintaining the existing facilities is the priority for this airport.

GOODS MOVEMENT

The *RTP Guidelines* state that RTPAs must plan for the movement of goods in the same way they plan for the movement of people to support population growth and economic development. Developing strategies for improving the regional movement of goods can have positive impacts such as job creation, a reduction in land use conflicts or a decrease in air pollution.

A combination of state highways and County roads serve as the primary network for goods movement in Calaveras County. Adequate maintenance and efficient operation of this roadway network is critical to the continued economic vitality of the County as well as safety of the public.

Calaveras County has a variety of farm and ranchland which generates goods which need to be transported out of the county for sale. Goods produced in Calaveras County include cattle, wine grapes, timber, rock, concrete, poultry, nuts, nursery products and apiary products. Several businesses in Calaveras County which generate truck traffic were contacted for input. These included forestry and agriculture companies on multiple occasions. So far, no input has been received.

Typical goods movement issues in rural counties include: potential conflicts between truck, recreational vehicle traffic and 40-foot tour buses on the County's narrow two-lane highways are an issue.

Additionally, a lack of shoulders and passing opportunities on the highway system is a safety concern in Calaveras County. All these factors can negatively impact goods movement through the County.

State Highway Truck Networks

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

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

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

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

California Legal Network routes consist of the following:

- Along SR 49 between the Amador County line and San Andreas
- Along SR 26 between SR 12 and SR 49

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

- SR 4 from Rock Creek Road at O’Byrnes Ferry Road near Copperopolis to SR 49 in Angels Camp.
- SR 49 between the SR 4 southern intersection and Tuolumne County line.
- SR 26 between the San Joaquin County line and SR 12.
- SR 26 between the San Andreas and Amador County line.

With the completion of the SR 4 Wagon Trail Realignment Project (top priority RTP project for Calaveras County), the California Legal Advisory section of SR 4 between Copperopolis and SR 49 will become a STAA route.

Truck Traffic Volumes

Table 13 presents data regarding truck activity on the state highways in Calaveras County from 2013 to 2018. Annual average daily truck traffic is the total truck traffic volume divided by 365 days. Truck counting is done throughout the state in a program of continuous truck count sampling. The sampling varies by location, and includes a partial day, 24-hour, 7-day and continuous vehicle classification counts. Road tube counters are used to count and classify truck traffic by the number of axles. The partial day and 24-hour counts are usually made on high volume, urban highways. The 7-day counts are made on low volume, rural highways. The counts are usually taken only once in the year, and about one-sixth of the locations are counted annually. The resulting counts are adjusted to an estimate of annual average daily truck traffic by compensating for seasonal influence, weekly variation, and other variables that may be present.

As shown, the highest truck traffic observed in 2018 occurred at the junction of SR 49 and SR 4 in Angels Camp (651 trucks per day). Other locations with high truck volumes include the junction of SR 26 and La Contenta Country Club Entrance (637 trucks per day) and on SR 49 and SR 12 (567 trucks per day). The lowest daily truck volumes occurred along SR 26 and Glenco Associated Office Road (36 trucks per day). Between 2013 to 2018, the greatest percentage truck traffic volume growth occurred along SR 26 at La Contenta Country Club Entrance (37.3 percent increase). Other state highway segments experiencing an increase in truck traffic included SR 49 at SR 12 (31 percent) and SR 36 in Glencoe (20 percent increase). Some state highways experienced a decrease in truck traffic volume including SR 49 south of SR 4 in Angels Camp (54.1 percent decrease) and SR 26 at Jenny Lind Road West (34.2 percent decrease).

The highway segment with the greatest proportion of total traffic consisting of trucks is SR 49 in Angels Camp (23.9 percent), despite a large decrease in truck volumes over the past five years. Other areas with a significant proportion of trucks include SR 4 near Big Trees State Park (11.0 percent), SR 26 in Glencoe (11.1 percent) and SR 26 at Jenny Lind Road (10.9 percent).

Goods Movement Issues

The main issues with respect to goods movement in Calaveras County is to establish the Wagon Trail section of SR 4 as an STAA route. Narrow shoulders on state highways also increase the potential for conflict between bicyclists, trucks and on-coming traffic. Additionally, truck traffic growth is the highest along SR 26 in Valley Springs, an area of significant future development over the long-term. This route also serves as an alternate to SR 4 for large trucks.

TABLE 13: Truck Traffic on Calaveras County State Highways

Location	Average Annual Daily Truck Traffic ⁽¹⁾						Change in Truck Traffic		Annual	Total Annual	Percent	
	2013	2014	2015	2016	2017	2018	2013-2018		% Change	Traffic Volumes	2018	Trucks
							#	%				
SR 4												
Stanislaus/Calaveras County Line	337	337	342	342	342	341	4	1.2%	0.3%	7,600	3.2%	
Vallecito, West	501	501	513	513	513	514	13	2.6%	0.6%	7,900	5.7%	
Vallecito, East	500	500	514	514	514	514	14	2.8%	0.7%	7,800	7.3%	
Big Trees/Tom Bell Roads, West	335	335	340	340	340	350	15	4.5%	1.1%	7,000	6.6%	
Big Trees/Tom Bell Roads, East	345	345	350	350	350	340	-5	-1.4%	-0.4%	6,800	7.4%	
Moran Road East Junction, West	236	236	240	240	240	240	4	1.7%	0.4%	6,000	5.0%	
Big Trees State Park, West	176	176	179	179	179	189	13	7.4%	1.8%	2,700	9.6%	
Big Trees State Park, East	185	185	189	189	189	179	-6	-3.2%	-0.8%	2,550	11.0%	
Meko Drive, West	114	114	120	120	120	119	5	4.4%	1.1%	1,400	10.0%	
Calaveras/Alpine County Line	23	23	24	24	24	24	1	4.3%	1.1%	1,200	1.8%	
SR 12												
Valley Springs, Jct. Rte. 26 South, West	361	361	366	366	366	366	5	1.4%	0.3%	6,000	9.6%	
Valley Springs, Jct. Rte. 26 South, East	543	543	536	536	536	561	18	3.3%	0.8%	6,200	7.1%	
Toyon, Jct. Rte. 26 North, West	408	408	462	462	462	480	72	17.6%	4.1%	8,000	6.8%	
San Andreas, Jct. Rte. 49, West	402	402	409	409	409	469	67	16.7%	3.9%	7,000	9.0%	
SR 26												
Jenny Lind Road, West	257	257	169	169	169	170	-87	-33.9%	-9.8%	2,500	10.9%	
Jenny Lind Road, East	334	334	359	359	359	394	60	18.0%	4.2%	6,250	4.6%	
La Contenta Country Club Entrance, West	464	464	637	637	637	637	173	37.3%	8.2%	11,800	3.8%	
La Contenta Country Club Entrance, East	482	482	536	536	536	536	54	11.2%	2.7%	11,900	4.1%	
Valley Springs, Jct. Rte. 12, West	469	469	485	485	485	490	21	4.5%	1.1%	11,400	3.8%	
Valley Springs, Jct. Rte. 12, East	94	94	84	84	84	85	-9	-9.6%	-2.5%	N/A	N/A	
Mokelumne Hill, Jct. Rte. 49, West	90	90	92	92	92	108	18	20.0%	4.7%	1,700	5.6%	
Mokelumne Hill, Jct. Rte. 49, East	66	66	71	71	71	75	9	13.6%	3.2%	2,350	2.7%	
Ridge Road, West	47	47	38	38	38	38	-9	-19.1%	-5.2%	1,100	7.0%	
Ridge Road, East	84	84	68	68	68	68	-16	-19.0%	-5.1%	740	10.4%	
Glenco, Associated Office Road, West	34	34	40	40	40	39	5	14.7%	3.5%	750	11.1%	
Glenco, Associated Office Road, East	30	30	35	35	35	36	6	20.0%	4.7%	700	6.9%	
Winton Road, West	71	71	59	59	59	59	-12	-16.9%	-4.5%	1,400	6.6%	
Winton Road, East	72	72	69	69	69	68	-4	-5.6%	-1.4%	1,800	4.4%	
SR 49												
Tuolumne/Calaveras County Line, East	225	221	179	179	179	180	-45	-20.0%	-5.4%	4,500	5.3%	
Angels Camp, South Jct. Rte. 4, West	651	651	651	651	651	651	0	0.0%	0.0%	9,300	7.5%	
Angels Camp, South Jct. Rte. 4, East	1,179	1,179	541	541	541	540	-639	-54.2%	-17.7%	6,000	23.9%	
North Jct. Rte. 4, West	328	328	328	328	328	328	0	0.0%	0.0%	9,600	4.0%	
North Jct. Rte. 4, East	422	422	422	422	422	422	0	0.0%	0.0%	8,200	6.5%	
Mountain Ranch Road, West	360	334	334	334	334	335	-25	-6.9%	-1.8%	6,700	6.0%	
Mountain Ranch Road, East	525	455	455	455	455	455	-70	-13.3%	-3.5%	9,100	6.7%	
Jct. Rte. 12 West, West	489	566	566	566	566	567	78	16.0%	3.8%	9,300	7.3%	
Jct. Rte. 12 West, East	306	300	300	300	354	401	95	31.0%	7.0%	5,900	5.4%	
Mokelumne Hill, Jct. Rte. 26, West	342	353	331	331	331	337	-5	-1.5%	-0.4%	5,250	6.2%	
Mokelumne Hill, Jct. Rte. 26, East	416	409	400	400	400	449	33	7.9%	1.9%	6,600	5.9%	

Note 1: Truck traffic includes all vehicles in the two-axle class (including 1-1/2 ton trucks with dual rear tire and excludes pickups and vans with only four tires) and above.
Source: 2013-2018 Annual Average Daily Truck Traffic on the California State Highway System, Caltrans, 2020.