



**CALAVERAS COUNCIL
of GOVERNMENTS**



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CALAVERAS COUNTY REGIONAL TRANSPORTATION PLAN 2021 - 2041

FINAL



Prepared by LSC Transportation Consultants, Inc

Calaveras County
Regional Transportation Plan Update
2021 - 2041
-FINAL-

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Executive Summary

The Calaveras County 2021 Regional Transportation Plan (RTP) provides a coordinated, 20-year vision of the regionally significant transportation improvements and policies needed to efficiently move goods and people within the region. As the Regional Transportation Planning Agency (RTPA), the Calaveras County Council of Governments is required by California law to adopt and submit an approved RTP to the California Transportation Commission (CTC) every four years. The California Department of Transportation (Caltrans) assists with plan preparation and reviews draft documents for compliance and consistency. The RTP must be consistent with other planning guidance in the region such as adopted general plans, airport plans, bicycle plans, and public transit plans.

PUBLIC INVOLVEMENT AND CONSULTATION PROCESS

The CCOG solicited public comment from a wide variety of groups, including the public, resource management agencies administering public lands, transit operators, truck traffic generators, transportation advocacy groups, tribal governments, and all surrounding counties. Two surveys were made available to the public by Calaveras County staff and posted online at different points in the RTP process using surveymonkey.com. Survey results are presented in Appendix D. Two workshops were held as part of regularly scheduled CCOG board meetings. The workshops guided the development of the Policy Element and Project Lists.

REQUIRED DOCUMENTATION

Environmental documentation for an RTP is required under the California Environmental Quality Act (CEQA). The CCOG has preliminarily determined that the Calaveras County 2020 RTP will not result in significant impacts. For the prior RTP update a Mitigated Negative Declaration was adopted. Therefore, an Initial Study/Proposed Mitigated Negative Declaration was prepared and is being circulated with this Draft RTP.

REGIONAL CHARACTERISTICS

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). 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, Copperopolis, Dorrington, Tamarack, Vallecito, Valley Springs, Murphys, Mokelumne Hill, and West Point.

DEMOGRAPHICS AND ECONOMICS

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 percent decrease from the 2010

Decennial Census counts. Of this population, approximately 92 percent of the population is living within unincorporated areas while the remaining eight percent (3,760 people) living within the Angels Camp (officially named the City of Angels).

Steady growth has occurred decade over decade except for 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). The population of 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. The California Department of Finance projects that the Calaveras County population will decrease by 13 percent by 2040.

According to the 2017 ACS, the largest employment industries in Calaveras County are educational services, health care and social assistance (20.8 percent), retail trade (11.7 percent), and professional, scientific, and waste management services (11.4 percent) as shown in Table 4. Major employers include the land management agencies, school districts, hospitals, and Calaveras County government offices. Nearly half of the countywide workforces travel outside of Calaveras County to go to work. Visitors are also a major user of Calaveras County transportation facilities.

CONSISTENCY WITH LOCAL PLANNING DOCUMENTS

As required by the guidelines, this version of the RTP is consistent with other local and regional planning documents. Transportation capital improvement projects listed in these plans have been incorporated into the Action Element of the RTP. These documents include: Calaveras County General Plan Circulation Element (2019), City of Angels Camp General Plan and Circulation Element (2020), Coordinated Public Transit Human Services Transportation Plan (2020), Calaveras County Pavement Management Program Update (2019), Murphys SR 4 Complete Streets Corridor Plan and Project Prioritization (2019), Central Sierra Zero Emission Vehicle Readiness Plan (2019), Systemic Safety Analysis Report (2018), San Andreas SR 49 Commercial Gateway & Corridor Study (2017), Short-Range Transit Plan (2016), Regional Bicycle, Pedestrian, and Safe Routes to School Plan (2015), Angels Camp Main Street Plan (2015), Angels Camp State Route 4 and 49 Gateway Corridor Study (2014), Annual Unmet Transits Needs Report, Valley Springs Town Center Connectivity Plan (2020), Pope Street Class 1 Facility and Safe Routes to School Gap Fill Plan (2020), and Angels Camp North Main St/SR – 49 Complete Streets Corridor Plan & Copello Road Pedestrian Connector (2020).

REGIONAL TRANSPORTATION SYSTEM

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 National 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. There are four state highways serving Calaveras County: State Route (SR) 49 running north-south and SR 4, 12 and 26 running east-west. SR

49 and the western portion of SR 4 are considered principal arterials. The state highways connect Calaveras County communities to each other as well as larger urban areas in the Central Valley. 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.

Roadways and Bridges

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). Relatively low traffic exists in the communities of Mokelumne Hill, Glencoe, and West Point on SR 26 with less than 2,000 cars per day. State highway sections that have 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 SR 26 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 have since 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.

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 Existing and Future LOS as per the *Calaveras County General Plan*. For roadways maintained by the County, 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:

- 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

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 period. Roughly 1.9 percent of the total crashes resulted in a fatality.

The *Calaveras County General Plan Environmental Impact 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. 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.

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. 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.

In Calaveras County, roadways are the most 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 one fatality in recent years.
- 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

CCOG currently oversees Calaveras Connect services (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 for those either 65 years of age and older or with a disability. Currently services are generally available Monday through Friday. Only the Red Line between Valley Springs and Angels Camp operates as a fixed route. Communities previously served by fixed route are now served by on-demand transit service.

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

- Making improvements to the first mile/last mile transportation system that would support Calaveras Connect riders. This could include sidewalks or crosswalks between bus stops, neighborhoods, and commercial centers;
- Ensuring that future state highway improvements consider the needs of public transit riders;
- Replacing aging vehicles; and
- Increasing transit service to the area will be important as Valley Springs builds out.

Non-Motorized Facilities

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. Table 12 shows total bicycle and pedestrian collisions by severity level. Only one fatality occurred during the 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. There is a need for increased safety along SR 49 within Angels Camp and the community of San Andreas.

Transportation needs and concerns related to non-motorized transportation 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

- 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
 - Murphys
- Sidewalks along six-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, or 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.
- 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.

Aviation Facilities

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

Goods Movement

A combination of state highways and County roads serve as the primary network for goods movement in Calaveras County. Adequate maintenance and efficient operation of this roadway network is critical to the continued economic vitality of the County as well as safety of the public. 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). The highway segment with the greatest proportion of total traffic consisting of trucks is SR 49 in Angels Camp (23.9 percent).

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 in Valley Springs, an area of significant future development over the long-term.

REGIONAL TRANSPORTATION GOALS

The CCOG proposes the following general regional transportation goals:

- Goal 1: Safety—Provide a safe and secure transportation system.
- Goal 2: Emergency Access/Climate Resilience—Provide a transportation system that allows for safe and efficient evacuation and is adaptable to future changes in weather patterns.
- Goal 3: Infrastructure—Maintain a high-quality transportation system.
- Goal 4: Quality of Life/Public Health—Enable vibrant and healthy communities.
- Goal 5: Environment—Enhance environmental health and reduce negative transportation impacts.
- Goal 6: Mobility/Accessibility/Equity—Provide a high degree of mobility and reliability for people and goods in Calaveras County using multimodal solutions, which provide accessibility to goods and services for all residents and preserve the rural character of the region.
- Goal 7: Economic Vitality—Support a resilient economy.

Calaveras County adheres to these goals as demonstrated in the RTP capital improvement project lists. Additionally, these goals reflect existing conditions in the county.

TRANSPORTATION SAFETY AND SECURITY/EMERGENCY PREPAREDNESS

The policy element of this RTP includes safety goals and objectives that comply with the California Strategic Highway Safety Plan. Transportation improvement projects that specifically address safety for all types of transportation modes are included in the project list tables.

In the Calaveras County region, forced evacuation due to wildfire, flood or landslide is the most likely emergency scenario. The Calaveras County region has several transportation security/emergency preparedness documents in place. The best preventative measures with respect to this document for an emergency evacuation would be to continue to implement projects in the RTP which upgrade roadways, airport facilities and public transit.

TRANSPORTATION SYSTEM IMPROVEMENTS

As a method of developing responses to the transportation needs and issues discussed in the earlier portions of this document, this RTP includes a list of transportation system improvements for each mode of transportation applicable to Calaveras County. This RTP lists both financially constrained and financially unconstrained improvements. Financially constrained projects are funded over the short- and long-term periods as demonstrated in the Financial Element. The unconstrained project list is considered a “wish list” of projects that would provide benefit to the region but will unlikely receive funding over the next 20 years unless new funding sources become available.

Proposed transportation improvement projects are listed in Tables 17-21 and Appendix H. Projects are categorized by funded status, transportation mode, project type and community location. The RTP improvement projects are consistent with those included in the Interregional Transportation Improvement Program (ITIP), Federal Transportation Improvement Program (FTIP) and the 2020 Regional Transportation Improvement Program (RTIP).

TRANSPORTATION FUNDING PROGRAMS

The Financial Element describes numerous federal, state, and local funding sources and programs that are available to the CCOG for transportation programs. Unfortunately, many of these funding sources are discretionary and allocated on a competitive basis and are therefore very difficult to predict. The primary state transportation funding source is fuel tax revenues which have been decreasing over time accounting for inflation and as vehicles have become more efficient. This RTP is based on a very conservative outlook on transportation funding over the next 20 years and includes a large financially unconstrained or “wish list” project list.

As part of the Financial Element, roadway, bridge, aviation, and transit revenues were forecasted over the next 20 years by using a variety of methods. The first five years of RTP projects are fiscally constrained. However, for the mid-term and long-term periods, there is a significant shortfall in recurring revenues, roughly \$52 million in regional roadway projects. Additionally, this figure does not include long-term projects with unknown project costs. Specific implementation dates for projects will depend on actual revenue available.

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Chapter 1

Introduction



CALAVERAS COUNCIL
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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 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 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 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 supplied by 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.

- 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.

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 is described below.

- **CCOG** became an established RTPA under a Joint Powers Agreement in January of 1998. CCOG staff includes an Executive Director, Associate Transportation Planner, Administrative Services Officer, and Administrative Assistant. The Council is made up three citizen members: two City of Angels (Angels Camp) City Council members, and two County 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.
- The **Technical Advisory Committee** 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.
- **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
- Calaveras County Air Pollution Control 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
CCOG Board Meeting	Policy Workshop	2/3/2021
Public Outreach- Outlying community focus	Virtual Workshop and On-line Survey	April 2021
CCOG Board Meeting	Project Lists Workshop	5/5/2021

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; and
- 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 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 directly 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

USDA Forest Service—A large portion of Calaveras County lies within the National Forest system, specifically the Stanislaus National Forest. 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 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 will be a low level of new housing and commercial development in Calaveras County over the next twenty years and will likely be focused in the Valley Springs 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.

Private Sector

An important user of the regional transportation system is the private sector. In Calaveras County, this includes businesses that 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 as well as 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 Council of Governments and operated through a contractor, Calaveras Connect serves the communities of San Andreas, Angels Camp, Valley Springs, Copperopolis, West Point, Murphys, Mokelumne Hill, and Arnold. The transit system also connects to Amador Transit (in Sutter Creek) and Tuolumne County Transit (in Columbia). 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 three 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. Sixty-two percent indicated they walk for at least five percent of their trips, 32 percent bike for at least five percent of their trips, and 12 percent use public transit for at least five 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 such as increasing the number of passing lanes, improving parking signage, widening road shoulders, and expanding public parking in downtown areas.
- Respondents were asked, if they had \$100, how would they allocate the money between 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

Additional Public Outreach—Calaveras residents living in the larger communities such as Valley Springs and San Andreas have had multiple opportunities to provide input on transportation projects through the recent corridor planning efforts. Residents in the small outlying communities have been involved in these processes. The RTP addresses the entire region not just the major communities, therefore, an additional round of public outreach was conducted to try and obtain input from residents of the outlying communities such as West Point and Mountain Ranch.

A “virtual workshop” was conducted in April of 2021, which consisted of up a voice-over power point presentation posted on the RTP website and advertised through local publications. Community organizations focusing on services for residents of the smaller communities were contacted individually and asked to distribute a link to the virtual workshop along with an accompanying on-line survey. Availability of the virtual workshop and survey were also posted on the Facebook pages for the small communities.

The virtual workshop provided an overview of the RTP process and invited listeners to download proposed RTP projects for their community and provide input through an on-line survey. One-hundred and twenty-four people responded to the survey. Results of this survey as included as part of Appendix D.

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.
- 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.

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, one 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 that 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 facilities 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 (2020)* 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 200 feet 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, Copperopolis, Dorrington, Tamarack, Vallecito, Valley Springs, Murphys, Mokelumne Hill, and West Point.



State Route (SR) 49 is the primary roadway for Calaveras County and runs north to south between Amador County and Tuolumne County. In addition, SR 26, and SR 4 run east to west through the north and south portions of the county, respectively.

POPULATION CHARACTERISTICS

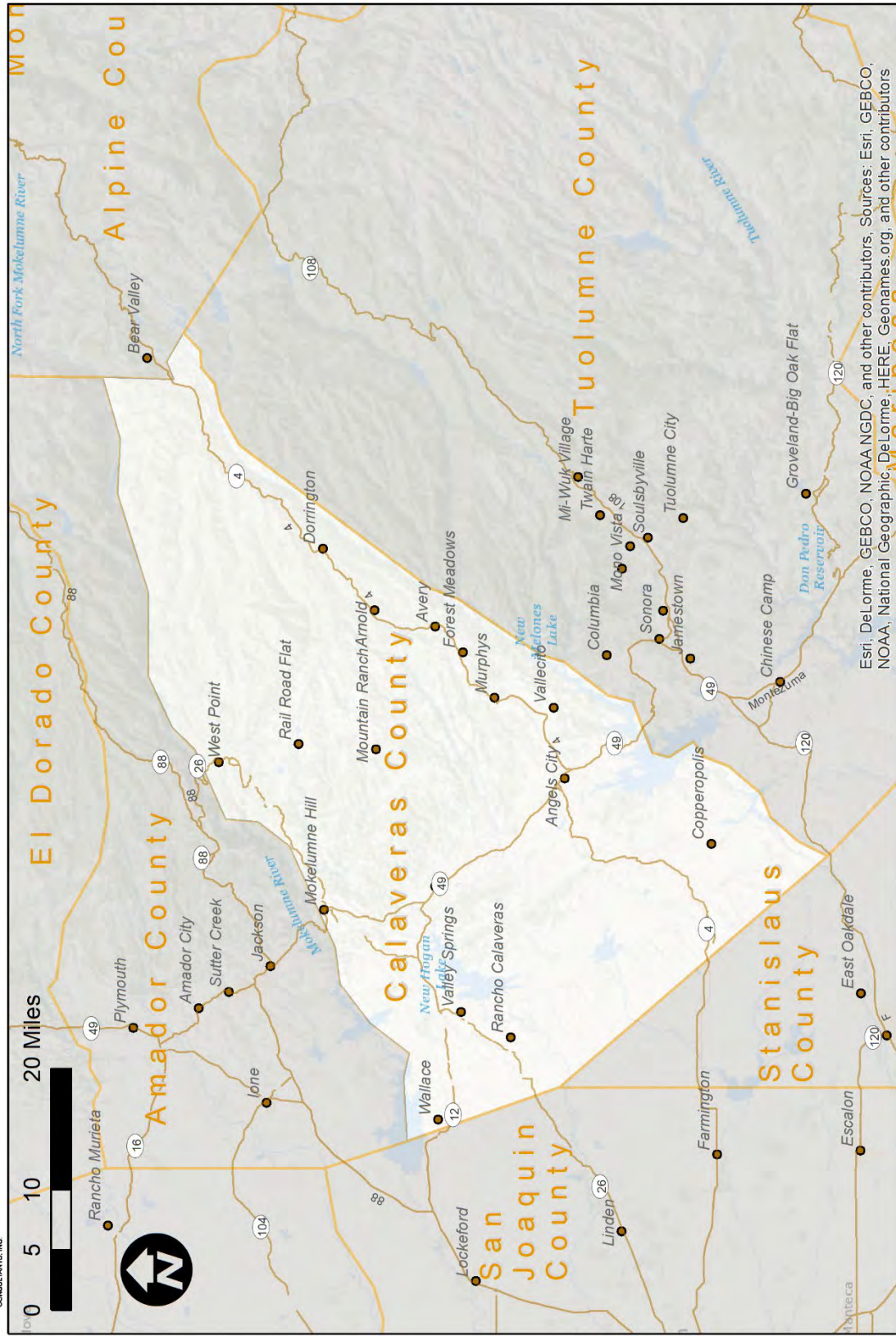
The following section reviews historic and current population trends and demographics within Calaveras County. This information is then followed by an overview of general population projections into 2040. The data used in this section summarizes information collected from both the California Department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

FIGURE 1
Calaveras County Map



Esri, DeLorme, GEBCO, NOAA NGDC, and other contributors. Sources: Esri, GEBCO, NOAA, National Geographic, DeLorme, HERE, Geonames.org, and other contributors



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

years, with Angels Camp experiencing the most growth (approximately 56.1 percent), followed by all unincorporated areas (39.6 percent).

Demographics

Table 2 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 five and 19 (15.2 percent). As a cumulative sum, the population of 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.

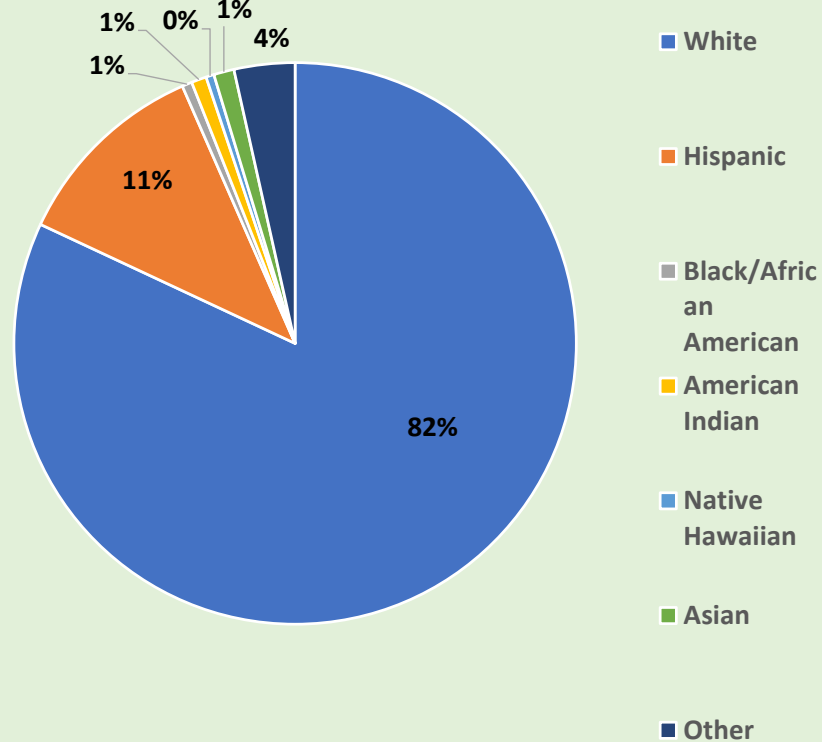
Table 3 and Figure 4 show the concentration of population ages 65 years and older living throughout Calaveras County. As shown, the census tracts encompassing the communities of San Andreas, Mokelumne Hill, and Valley Springs have the highest population of those age 65 years and older.

Housing

The 2017 ACS estimated that there is a total of 28,169 housing units in Calaveras County. Since the 2010 Census, the total amount of housing has grown by 556 housing units to 28,725, or approximately two percent. Additionally, approximately 10,357 of these units, or 36.7 percent, are considered vacant.

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.

FIGURE 2: Existing Population by Ethnicity

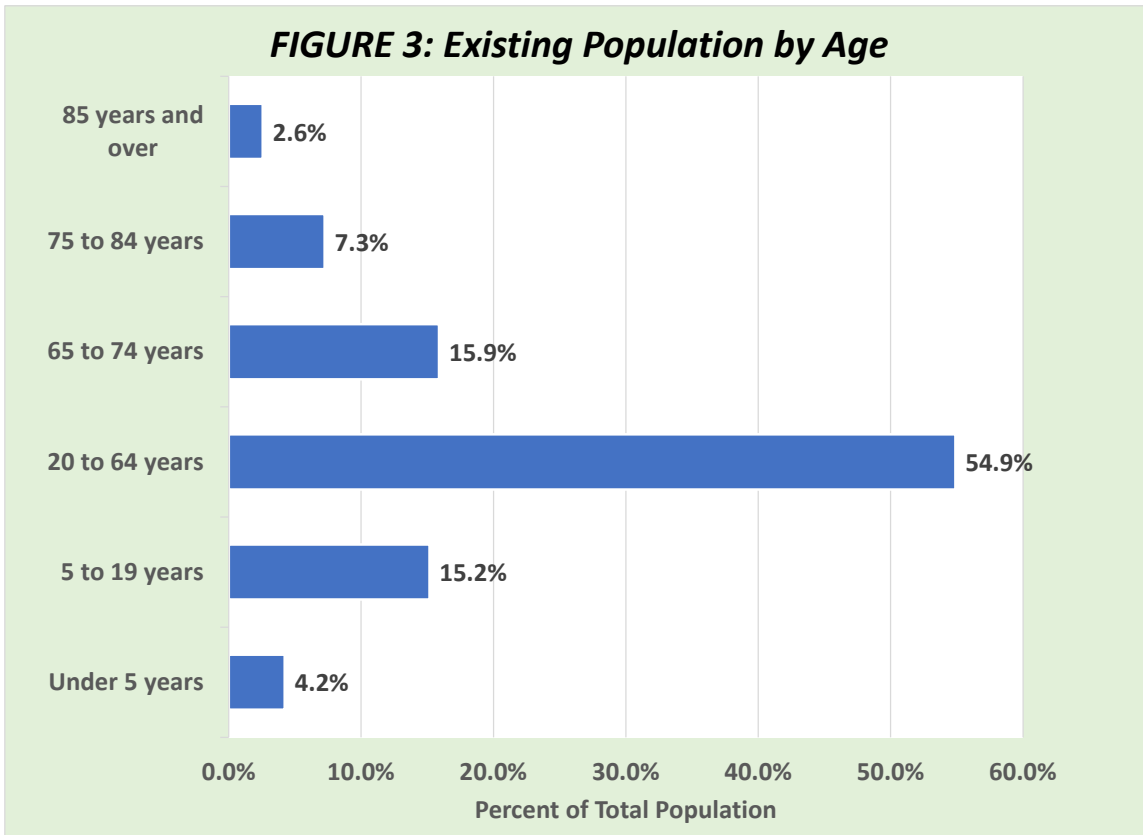


Employment

According to the 2017 ACS, the largest employment industries in Calaveras County are educational services, health care and social assistance (20.8 percent), retail trade (11.7 percent), and professional, scientific, and waste management services (11.4 percent) as shown in Table 4. Major employers include the land management agencies, school districts, hospitals, and Calaveras County government offices.

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.

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.

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.

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.

TABLE 3: Calaveras County Characteristics by Census Tract

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

Source: 2013-2017 American Community Survey

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.

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

FIGURE 4
Age Distribution by Census Tract

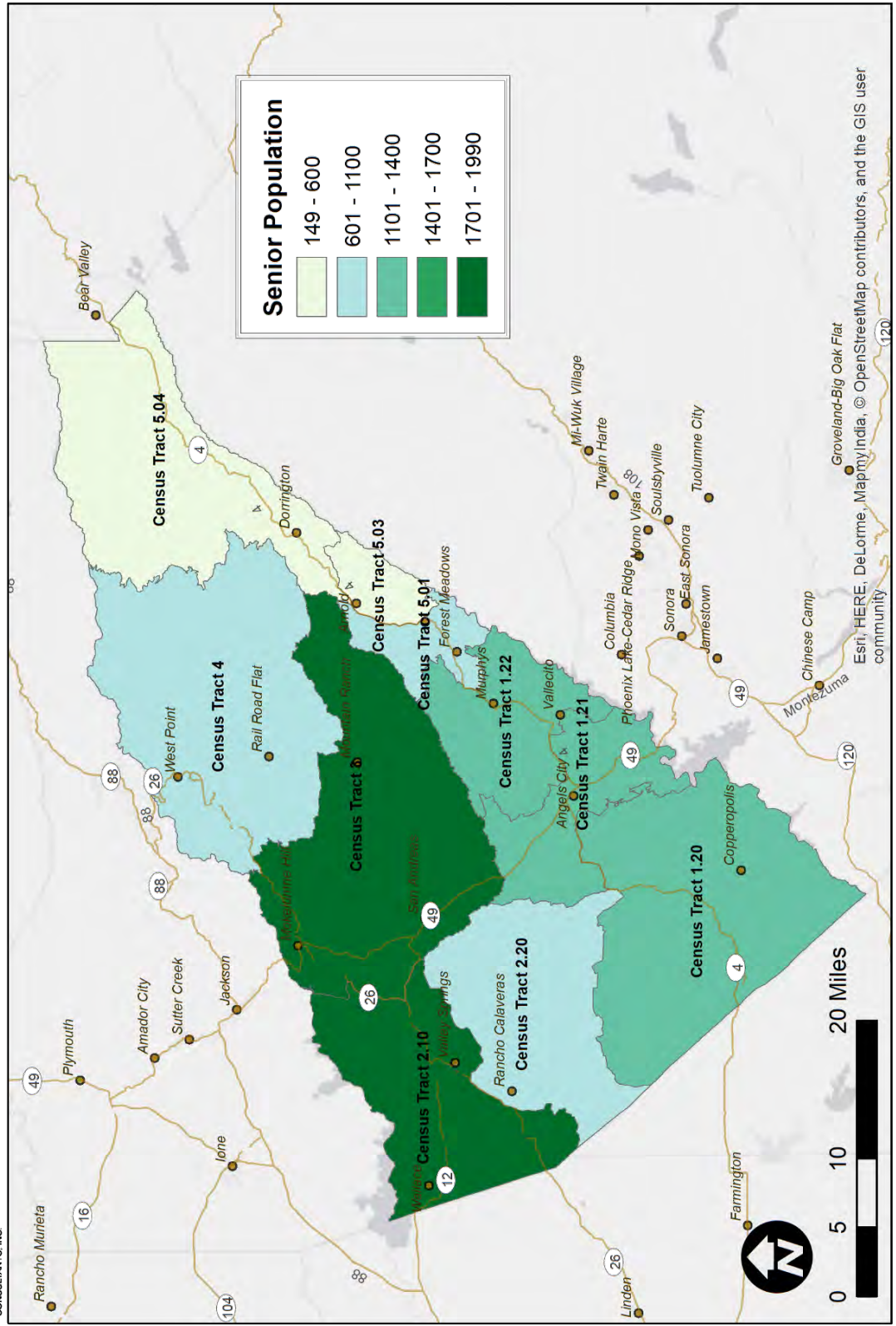


FIGURE 5
Household Distribution by Census Tract

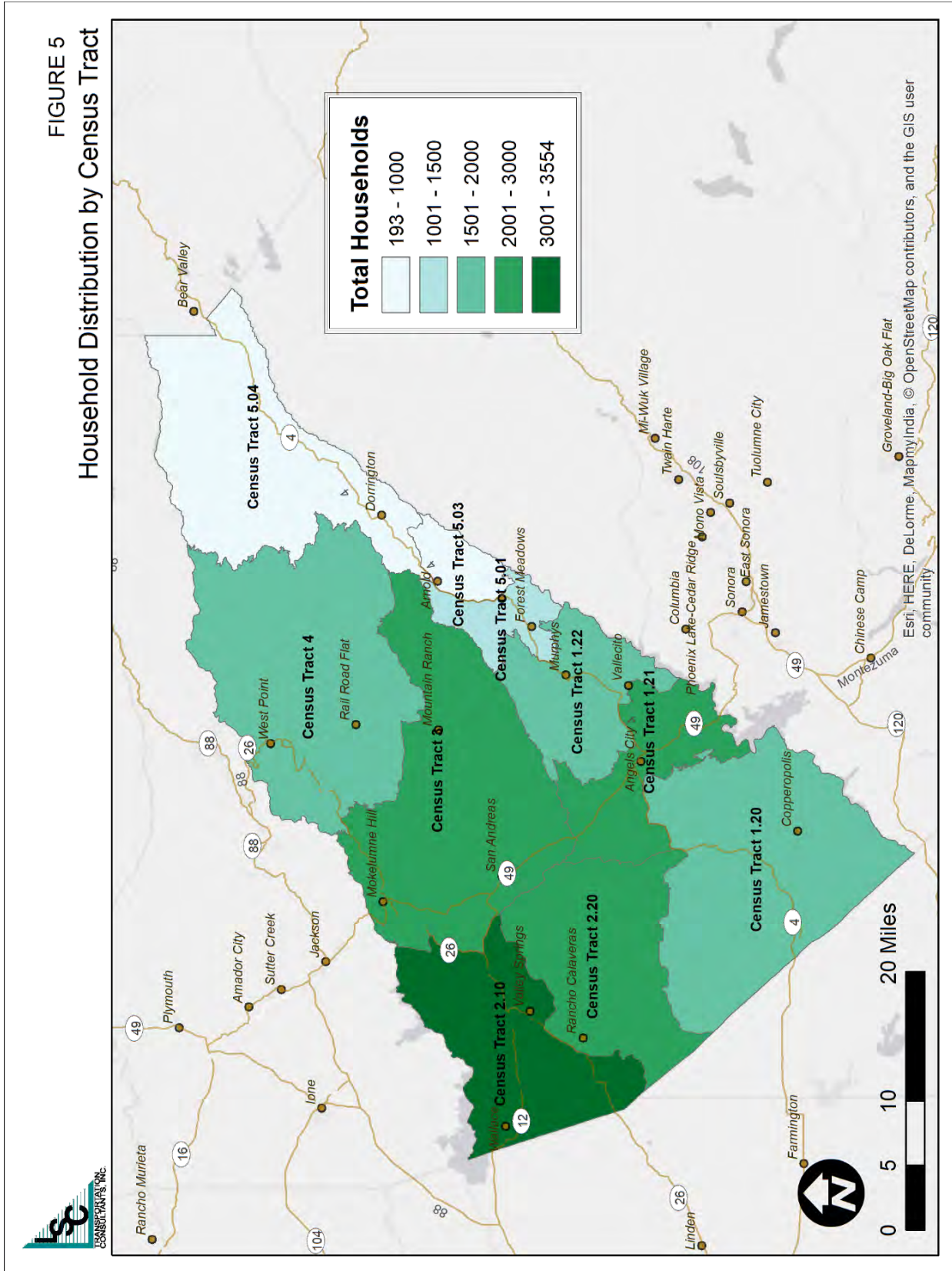


TABLE 4: Employment Industry by Type

Job	# of Jobs	% of Total
Educational services, and health care and social assistance	3,476	21.2%
Retail trade	1,952	11.9%
Professional, scientific, and mgmt, and admin and waste mgmt services	1,911	11.7%
Construction	1,825	11.2%
Manufacturing	1,484	9.1%
Arts, entertainment, and recreation, and accommodation and food services	1,305	8.0%
Public administration	1,218	7.4%
Transportation and warehousing, and utilities	975	6.0%
Other services, except public administration	807	4.9%
Finance and insurance, and real estate and rental and leasing	661	4.0%
Agriculture, forestry, fishing and hunting, and mining	485	3.0%
Wholesale trade		0.0%
Information	267	1.6%
Total Number of Employment Opportunities 16,366		

Source: 2013-2017 American Community Survey

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, 23.4 percent of employed people who live in Calaveras County also 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 from Valley Springs or SR 4 from Copperopolis. 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.

FIGURE 6
Income Distribution by Census Tract

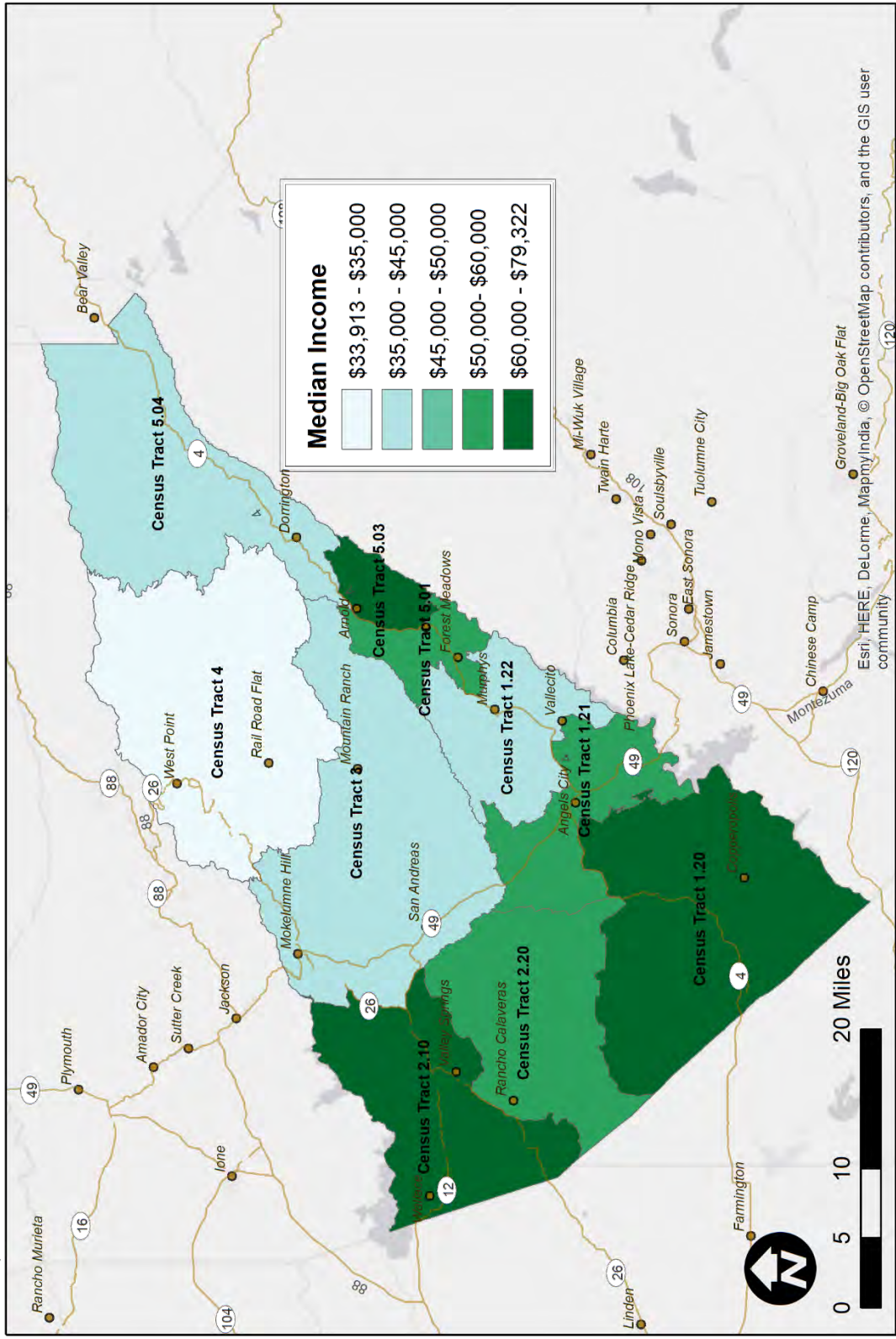
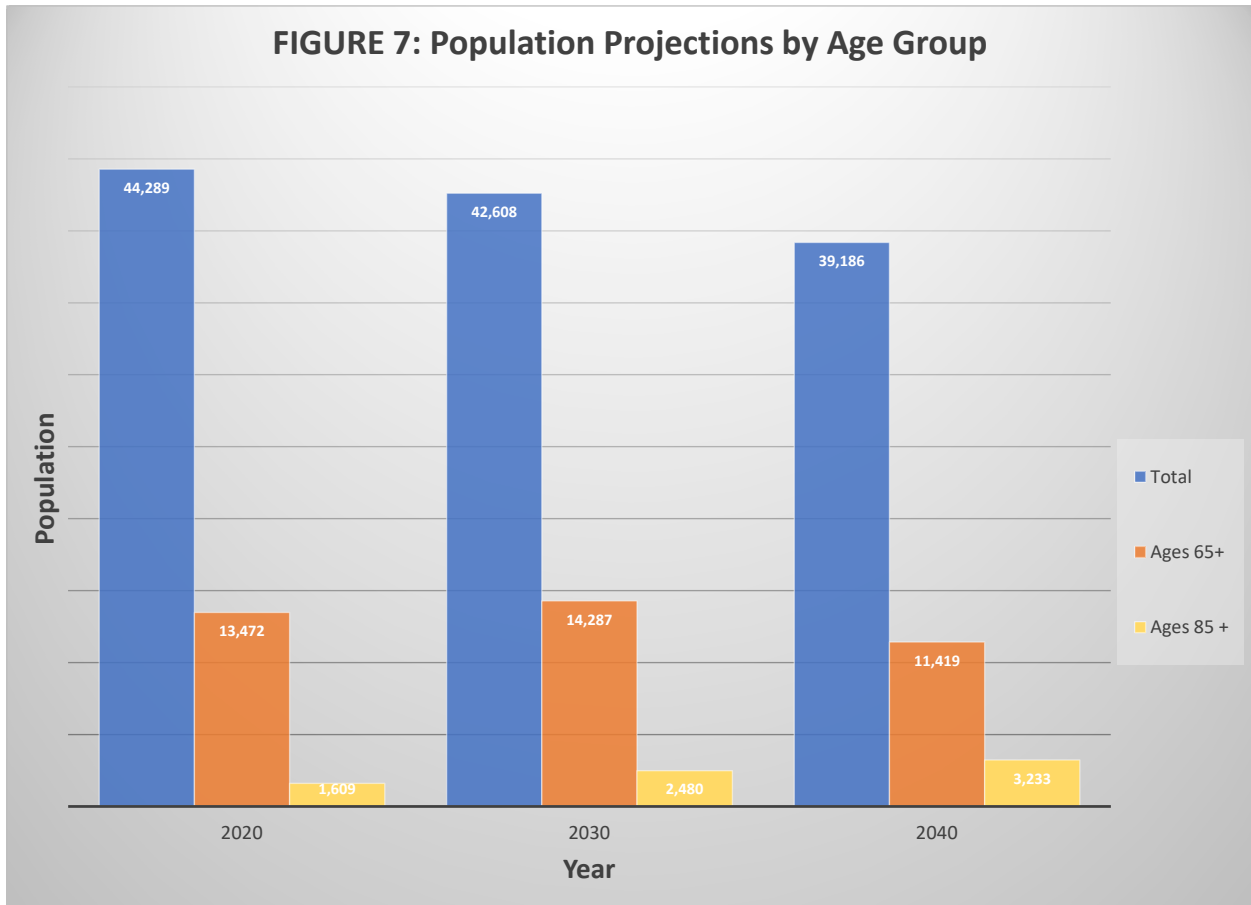


TABLE 5: Population Projections

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



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 carpoolled, 8.3 percent worked from home, 1.2 percent walked, one percent used public transportation, 0.1 percent bicycled, and 0.6 percent used other

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%
	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

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 two 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.

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

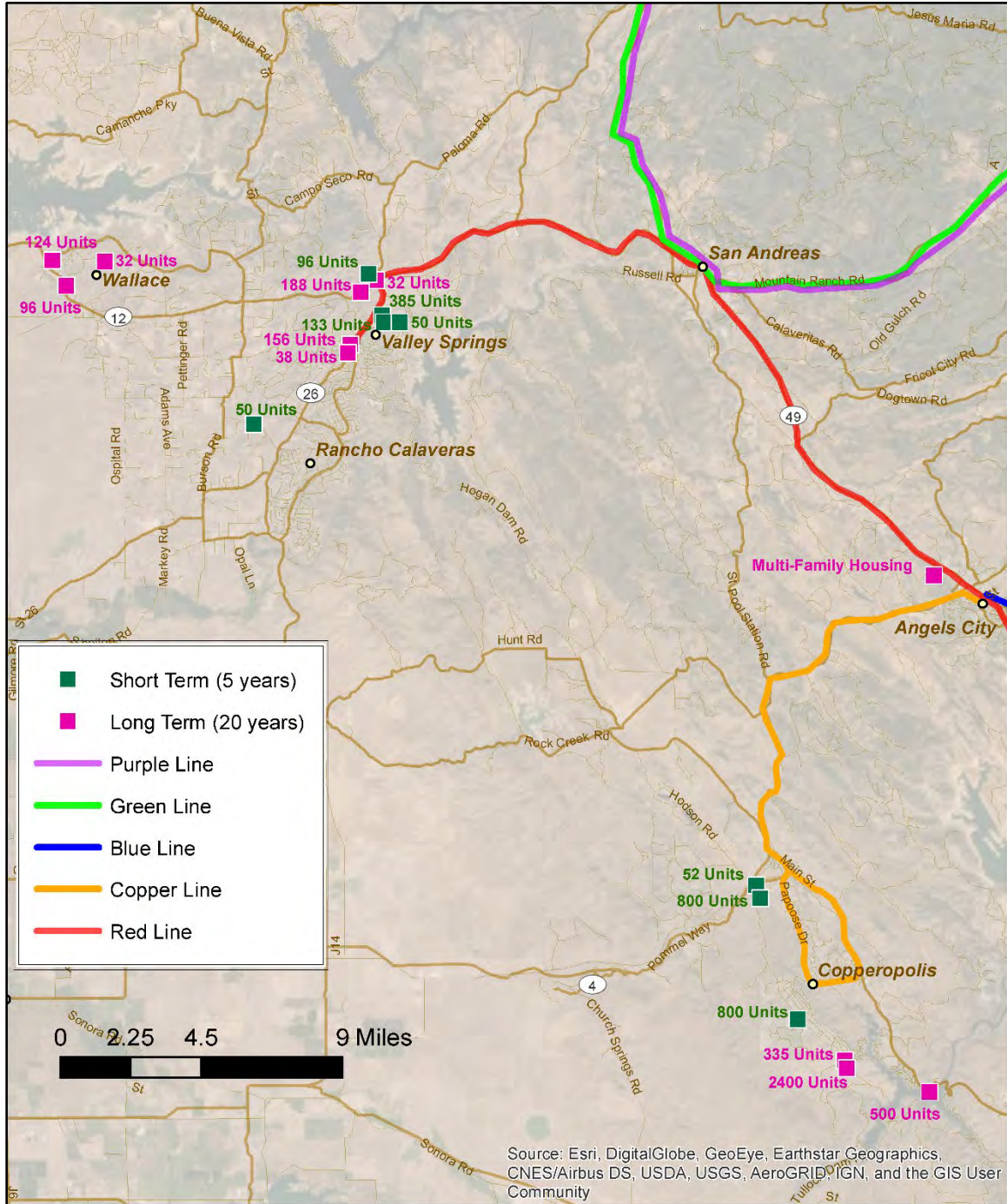
development in the Community Center land use designation, 784 acres of commercial land, and 8,203 acres of industrial land.

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 (five 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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Chapter 3 Planning Documents

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

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 General Plan and Circulation Element (2020)

The City of Angels Camp (Angels Camp) recently completed a General Plan with an updated Circulation Element. 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.
6. Collaborate around local emergency transportation initiatives to support Coordinated Plan target group members during times of emergency.
7. 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 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; and
- 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 1.2 miles north of Riata Way
7. Pool Station Road (south) between 1.2 miles north of Riata Way and 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 \(2016\)](#)

The purpose of this Short-Range Transit Plan was to guide Calaveras Transit services towards improved efficiency and mobility for both residents and tourists. The plan established goals and performance standards, public input opportunities, market research, and recommendations for 2016 through 2021.

The plan also included an overview of existing Calaveras Transit operating characteristics, demographic information, and public outreach results. The following capital improvements and service alternatives were recommended for Calaveras County to implement prior to 2021:

- Plan for the Operations and Maintenance Facility (land acquisition, design and environmental, and construction);
- Purchase five new vehicles (two Class E Cutaways, one Class C cutaway, and two Class D sedans);
- Implement flex route feeder services to Route 1;
- Implement fixed route between SR 49 in Angels Camp to Daphne Street in Valley Springs;
- Provide public dial-a-ride services in Angels Camp on weekdays;
- Provide public checkpoint service between Copperopolis, Mountain Ranch, Burson, and West Point two to three days a week;
- Offer intercity service between San Andreas, Rancho Calaveras, and Stockton with two trips per day in each direction;
- Implement a fixed route that connects hotels to tourist destinations; and
- Distribute volunteer driver mileage reimbursement and taxi vouchers.

[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; and
- 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)

Transportation will increase in Angels Camp by 28 percent by 2040 and action needs to be taken to resolve existing roadway conflicts. Transportation issues addressed include:

- Street “A” Alignment
- Downtown Connection Alignment
- Regional Connection with access at Foundry Lane
- and/or Angel Oaks Drive

The plan includes recommendations to improve the corridor’s connectivity through sidewalks, bike lines, parking, and buffers. The plan also recommends appropriate building design and scale. Specific improvements to Dogtown Road, Street A and Frog Jump Plaza were identified. Lastly, the plan recommended gateway improvements such as natural landscaping and signage.

Annual Unmet Transits Needs Report

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 (FY) 2019 – 20 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 FY 2018 – 19 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.

- The FY 2017 – 18 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. The planning effort is being funded by a Sustainable Transportation Planning Grant provided by Caltrans. 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.
- *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

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 Northern Sierra Air Quality Management District (NSAQMD). The low population density, limited number of industrial and agricultural installations, and minimal problems with traffic congestion all contribute to Calaveras County's generally good air quality.

However, the county is currently in non-attainment of state and federal Ozone standards, state Particulate Matter (PM10) standards, but not federal PM10 standards. 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. Primary sources of PM10 pollution include wood stoves, open and prescribed burning, wind-blown dust generated from unpaved roads, and agriculture. Ozone non-attainment issues are a result of ozone generated in the San Joaquin Valley, which drifts eastward with the prevailing winds. Thus, air pollution problems in the region are not from locally generated transportation sources.

As Calaveras County is an isolated rural non-attainment maintenance area, there are no requirements to conduct a transportation conformity analysis in the RTP. However, project-level conformity determination must be done when a non-exempt federal transportation project needs approval.

Global climate change is an important air quality issue that is closely related to transportation. Climate change is caused by the release of greenhouse gases (GHGs) such as carbon dioxide, methane, nitrous oxide, hydro fluorocarbons, perfluorocarbons, and sulfur hexafluoride into the atmosphere that traps heat and increases temperatures near the earth's surface. Motorized vehicles emit carbon dioxide and are large contributors to GHG emissions. In fact, according to the CARB GHG Inventory for 2019, transportation accounts for roughly 40 percent of total GHG emissions in California. Forecasted, long-term consequences of climate change range from a rise in the sea level to a significant loss of the Calaveras snowpack. Despite potentially devastating long-term effects, climate change does not have immediately visible effects such as smog. However, GHG emissions are an important air quality issue, which needs to be addressed in regional transportation planning documents. This RTP includes policies and improvement projects which will reduce GHG emissions.

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 National 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:

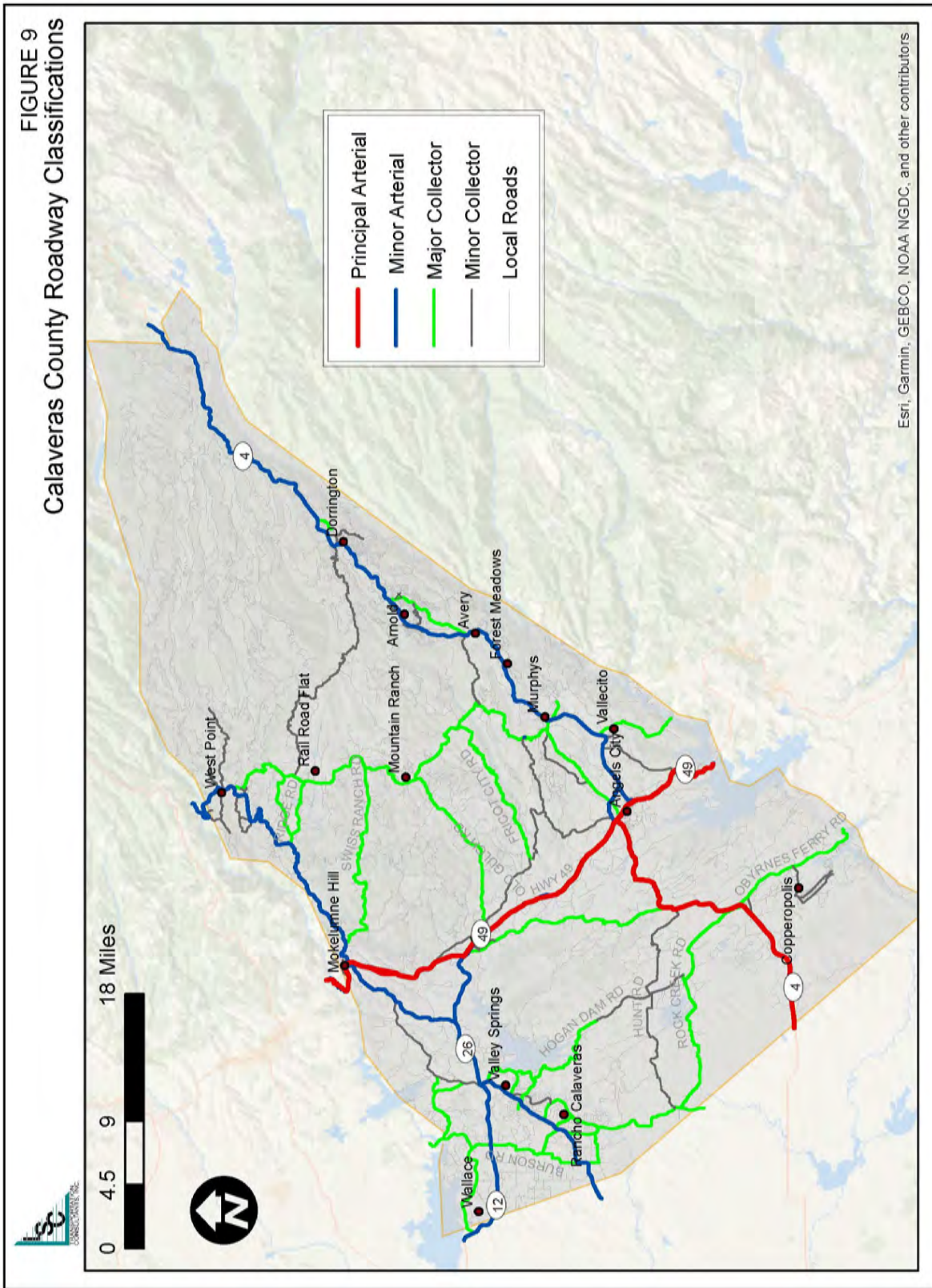
- **Minor Arterials** are roadways that provide for moderate length trips between communities. They are considered to allow through traffic to flow at relatively high speeds with minimum interference from various of access points. Within Calaveras County, SR 4, 12, 26, and 49 are all classified as minor 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.
- **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 enters the County through Telegraph City and makes its way up through Copperopolis, Murphys, and Arnold. It also

FIGURE 9
Calaveras County Roadway Classifications



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



provides access to the Calaveras Big Trees State Park. The western portions of the highway are affected by commuter and recreational traffic. The central and eastern segments of SR 4 are used by recreational 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, 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 SR 88. 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 principal 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

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 that 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

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

Location	Change in Traffic Volumes											Average Annual					
	2008-2018											Percent Change					
	#	%	#	%	#	%	#	%	#	%	#	%	2008-18	2013-18			
State Route 4																	
Stanislaus-Calaveras County Line	4,800	7,500	7,500	7,600	7,600	7,600	7,600	7,600	7,600	7,600	7,600	2,800	58.3%	100	1.3%	4.7%	0.3%
Hodson Road/Reeds Turnpike, West	5,300	5,300	5,300	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	100	1.9%	100	1.9%	0.2%	0.4%
Hodson Road/Reeds Turnpike, East	5,300	4,250	4,250	4,350	4,350	4,350	4,350	4,350	4,350	4,350	4,350	-950	-17.9%	100	2.4%	-2.0%	0.5%
O Byrnes Ferry Road, West	5,300	4,350	4,350	4,450	4,450	4,450	4,450	4,450	4,450	4,450	4,450	-850	-16.0%	100	2.3%	-1.7%	0.5%
O Byrnes Ferry Road, East	5,900	3,900	3,900	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	-1,900	-32.2%	100	2.6%	-3.8%	0.5%
Vallecito, West	5,100	7,700	7,700	7,900	7,900	7,900	7,900	7,900	7,900	7,900	7,900	2,800	54.9%	200	2.6%	4.5%	0.5%
Vallecito, East	6,700	7,600	7,600	7,800	7,800	7,800	7,800	7,800	7,800	7,800	7,800	1,100	16.4%	200	2.6%	1.5%	0.5%
Big Trees/Tom Bell Roads, West	9,000	6,900	6,900	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	-2,000	-22.2%	100	1.4%	-2.5%	0.3%
Big Trees/Tom Bell Roads, East	9,000	6,700	6,700	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	-2,200	-24.4%	100	1.5%	-2.8%	0.3%
Avery, Moran Road West Junction, West	9,900	7,400	7,400	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	-2,400	-24.2%	100	1.4%	-2.7%	0.3%
Avery, Moran Road West Junction, East	8,900	6,600	6,600	6,700	6,700	6,700	6,700	6,700	6,700	6,700	6,700	-2,200	-24.7%	100	1.5%	-2.8%	0.3%
White Pines Road, West	11,000	7,300	7,300	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	-3,600	-32.7%	100	1.4%	-3.9%	0.3%
White Pines Road, East	7,600	6,700	6,700	6,800	6,800	6,800	6,800	6,800	6,800	6,800	6,800	-800	-10.5%	100	1.5%	-1.1%	0.3%
Moran Road East Junction, West	6,800	5,900	5,900	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	-800	-11.8%	100	1.7%	-1.2%	0.3%
Moran Road East Junction, East	3,650	3,200	3,200	3,250	3,250	3,250	3,250	3,250	3,250	3,250	3,250	-400	-11.0%	50	1.6%	-1.2%	0.3%
Big Trees State Park, West	3,650	2,650	2,650	2,700	2,700	2,700	2,700	2,700	2,700	2,700	2,700	-950	-26.0%	50	1.9%	-3.0%	0.4%
Big Trees State Park, East	3,450	2,500	2,500	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	-900	-26.1%	50	2.0%	-3.0%	0.4%
Dorrington, West	3,650	2,700	2,700	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	-900	-24.7%	50	1.9%	-2.8%	0.4%
Dorrington, East	2,200	1,600	1,600	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	-550	-25.0%	50	3.1%	-2.8%	0.6%
Meko Drive, West	1,850	1,350	1,350	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	-450	-24.3%	50	3.7%	-2.7%	0.7%
Meko Drive, East	1,950	1,450	1,450	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	-450	-23.1%	50	3.4%	-2.6%	0.7%
Big Meadows, West	1,750	1,050	1,050	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	-650	-37.1%	50	4.8%	-4.5%	0.9%
Big Meadows, East	1,650	990	990	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	-650	-39.4%	10	1.0%	-4.9%	0.2%
Calaveras-Alpine County Line	1,250	1,150	1,150	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	-50	-4.0%	50	4.3%	-0.4%	0.9%
State Route 12																	
San Joaquin-Calaveras County Line	6,900	6,000	6,000	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	-1,500	-21.7%	-600	-10.0%	-2.4%	-2.1%
Wallis, Comanche Parkway, West	5,900	6,000	6,000	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	-500	-8.5%	-600	-10.0%	-0.9%	-2.1%
Wallis, Comanche Parkway, East	6,300	5,500	5,500	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	-1,300	-20.6%	-500	-9.1%	-2.3%	-1.9%
Burson, Burson Road, West	5,800	5,300	4,750	4,750	4,750	4,750	4,750	4,750	4,750	4,750	4,750	-1,050	-18.1%	-550	-10.4%	-2.0%	-2.2%
Burson, Burson Road, East	8,400	6,100	6,100	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	-2,900	-34.5%	-600	-9.8%	-4.1%	-2.0%
Valley Springs, Pine Street, West	8,300	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	-2,300	-27.7%	0	0.0%	-3.2%	0.0%
Valley Springs, Pine Street, East	8,600	6,200	6,200	6,200	6,200	6,200	6,200	6,200	6,200	6,200	6,200	-2,400	-27.9%	0	0.0%	-3.2%	0.0%
Jct. Rte. 26 South, West	8,600	5,700	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	5,800	-2,800	-32.6%	100	1.8%	-3.9%	0.3%
Jct. Rte. 26 South, East	6,800	8,900	8,800	8,800	8,800	8,800	8,800	8,800	8,800	8,800	8,800	2,400	35.3%	300	3.4%	3.1%	0.7%
West Junction Lime Creek Road, West	6,800	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	1,200	17.6%	300	3.9%	1.6%	0.8%
West Junction Lime Creek Road, East	6,800	7,100	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	1,200	17.6%	900	12.7%	1.6%	2.4%
Toyon, Jct. Rte. 26 North, West	7,600	6,800	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700	400	5.3%	1,200	17.6%	0.5%	3.3%
Toyon, Jct. Rte. 26 North, East	7,400	5,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	-1,100	-14.9%	1,300	26.0%	-1.6%	4.7%
San Andreas, Jct. Rte. 49	7,600	6,000	6,100	6,100	6,100	6,100	6,100	6,100	6,100	6,100	6,100	-600	-7.9%	1,000	16.7%	-0.8%	3.1%

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



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

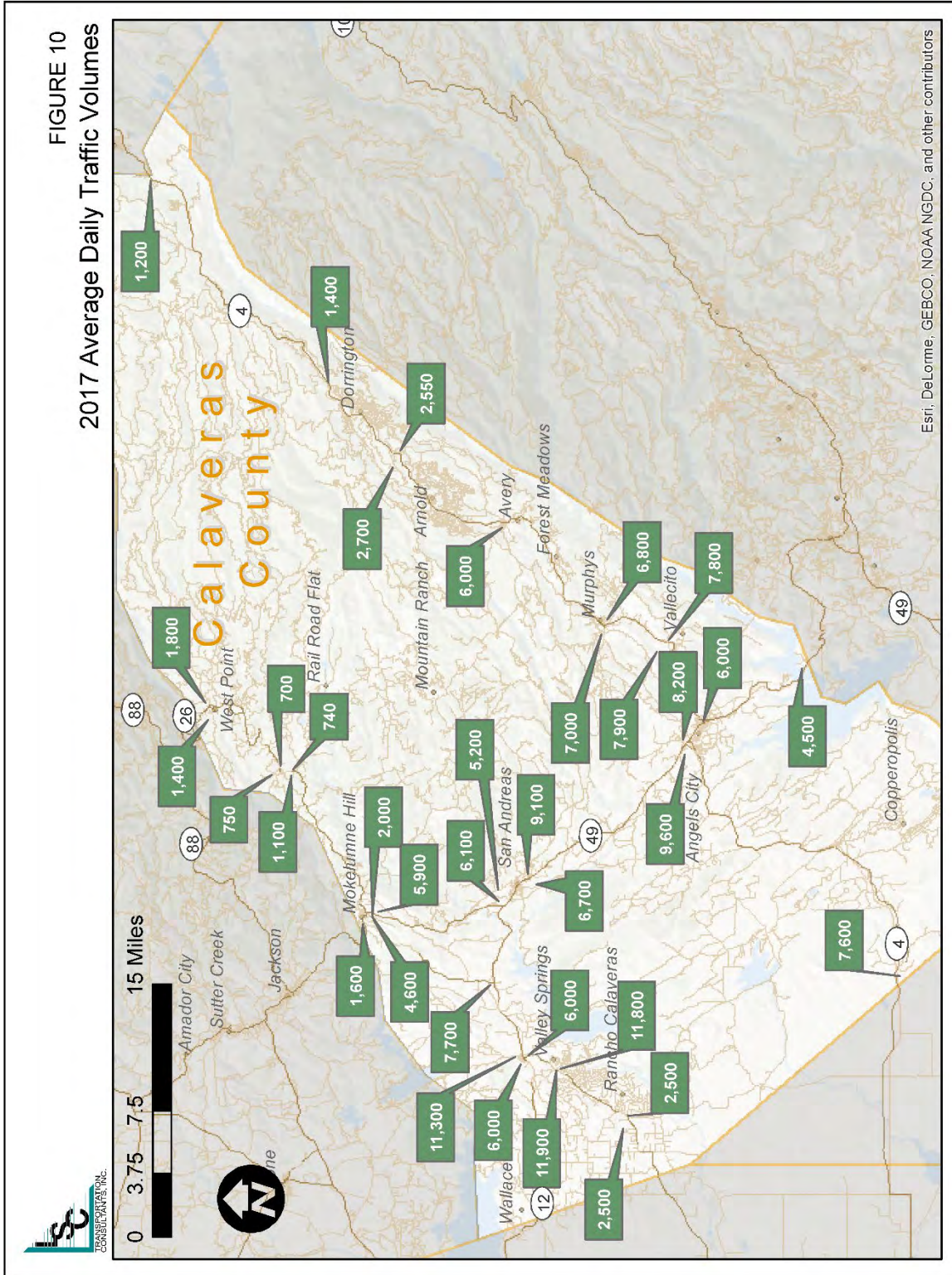
Location	2008	2013	2014	2015	2016	2017	2018	Change in Traffic Volumes				Average Annual	
								2008-2018		2013-2018		Percent Change	
								#	%	#	%	2008-18	2013-18
State Route 26													
San Joaquin-Calaveras County Line	4,950	4,300	4,450	4,850	5,050	5,050	5,400	450	9.1%	1,100	25.6%	0.9%	4.7%
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%	0.0%	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	5,500	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.



FIGURE 10
2017 Average Daily Traffic Volumes



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

relatively low traffic exists in the communities of Mokelumne Hill, Glencoe and West Point on SR 26 with less than 2,000 cars per day.

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 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 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 SR 26 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 have since 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.

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 failure.

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*—Pool Station Road to 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 Existing and Future LOS as per the Calaveras County General Plan.

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**

For roadways maintained by the County, 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:

- 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 Crashes

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 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.

Pavement Conditions

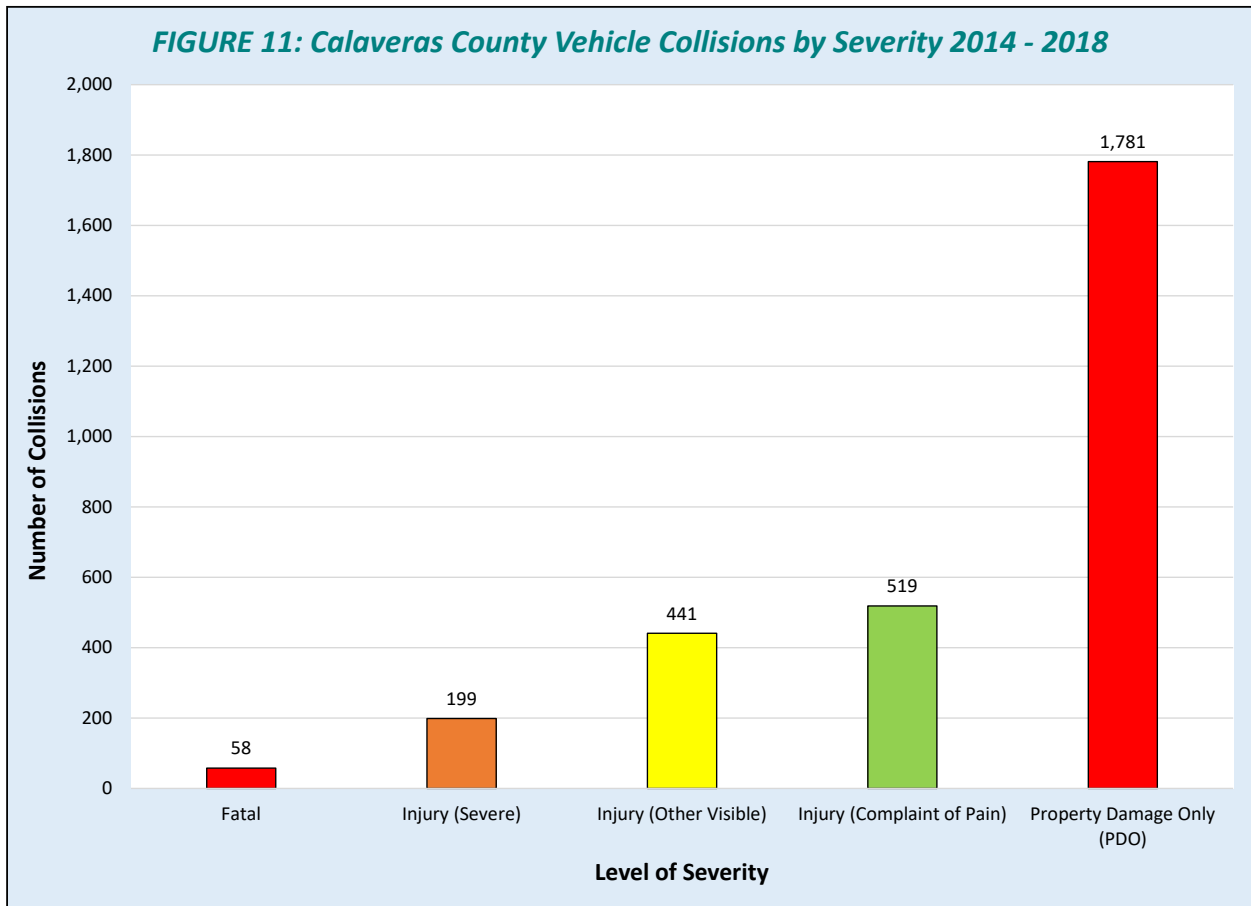
In 2019, CCOG hired Nichols Consulting Engineers to analyze roadway pavement conditions and prioritize pavement projects for both Angels Camp and Calaveras County. In order to update the County and City of Angels Camp Pavement Management Program (PMP), the firm performed condition surveys and inventory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

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



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.

FIGURE 12
Calaveras County Vehicle Crashes 2014-2018

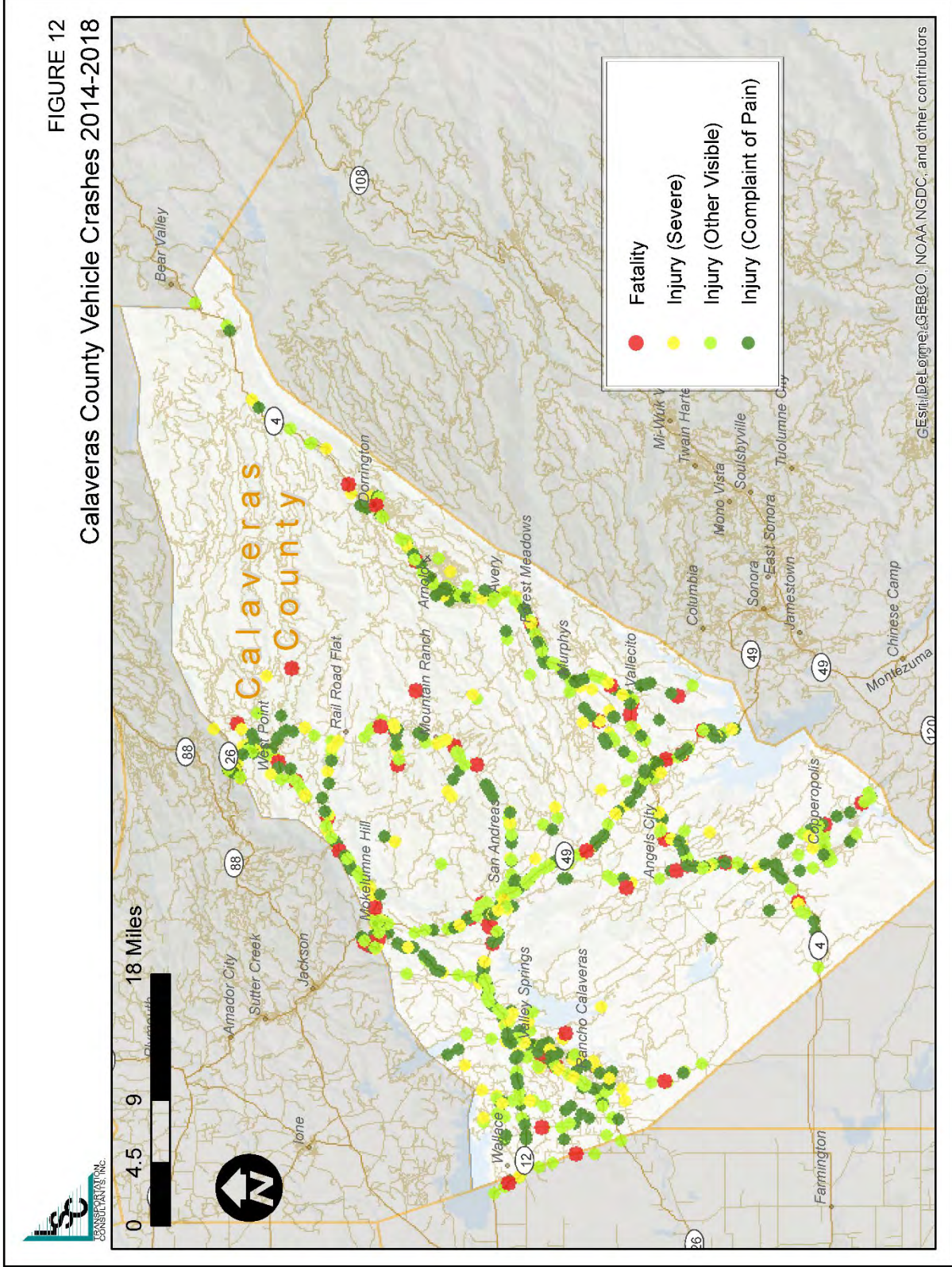


TABLE 11: Serious Vehicle Collisions by Type

Type of Collision	Count	%
Hit Object	499	41.0%
Overtaken	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.

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.

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. Appendix F graphically presents pavement conditions in the county.

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 one fatality in recent years.
- 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

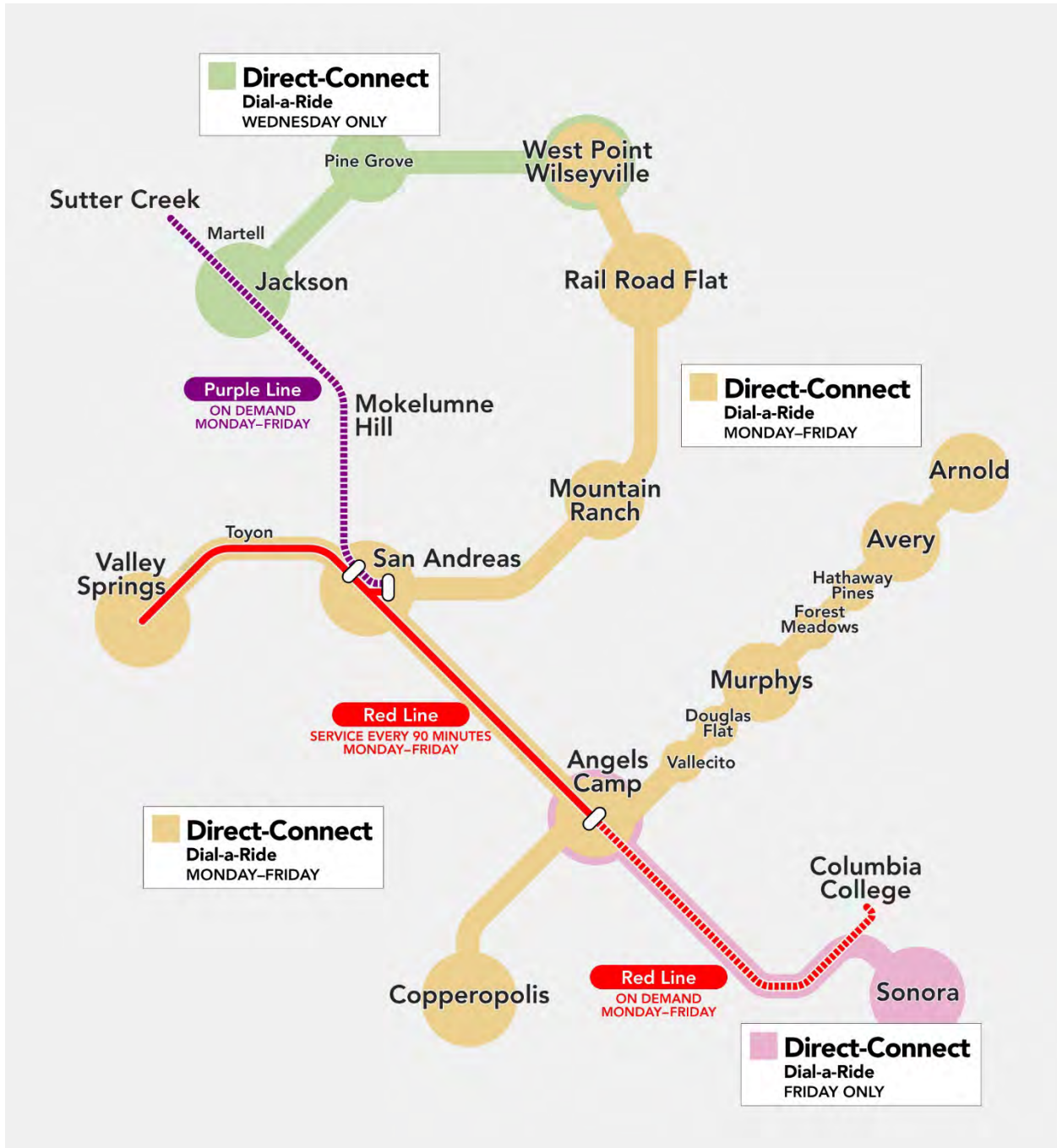
Public transit services provide mobility to Calaveras County residents, including access to important medical, recreational, social, educational, and economic services and opportunities, many of which require travel outside of the county. However, providing effective and efficient public transit in Calaveras 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

CCOG currently oversees Calaveras Connect services (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 for those either 65 years of age and older or with a disability. Services are generally available Monday through Friday between 5:30 AM and 9:00 PM with a 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 Red Line runs every 90 minutes between Valley Springs and Angels Camp from 6:20 AM to 7:40 PM, with stops in San Andreas and Angels Camp. On-demand service is available to Columbia College.
- The Purple Line runs from San Andreas to the Sutter Hill Transit Center in Amador County as well as from San Andreas to Rail Road Flat as an on-demand service.

Figure 13: Calaveras Connect Services



- The SR 4 corridor between Copperopolis and Arnold are served by Dial-A-Ride Monday through Friday.
- On Friday Dial-A-Ride service operates between Angels Camp and Sonora.

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. Fares were not charged during the COVID pandemic.

During FY 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 most of the routes operating on-demand only.

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. Pre-COVID, 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.

Valley Rail is an extension of Altamont Corridor Express (ACE) between Sacramento and Merced and implements five new ACE roundtrips to/from Sacramento (three between Ceres/Merced to Sacramento, one Stockton to Sacramento, and one Sacramento to San Jose).

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 percent 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 a 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, such as:

- Making improvements to the first mile/last mile transportation system that would support Calaveras Connect riders. This could include sidewalks or crosswalks between bus stops, neighborhoods, and commercial centers

- Ensuring that future state highway improvements consider the needs of public transit riders
- Replacing aging vehicles
- Increasing transit service to the area will be important as Valley Springs builds out
- Over the long-term, there may be a need to provide intercity public transportation to Stockton. In the past, Calaveras Connect implemented a pilot intercity service to Stockton to connect with a college and intercity transit services such as Greyhound and Amtrak. The service was discontinued due to low ridership. However, as populations grow, feasibility of service to Stockton could be reviewed again, particularly in light of the fact that the California Rail Plan (2018) identifies a High-Speed Rail stop in Stockton.

NON-MOTORIZED FACILITIES

Bicycle and pedestrian facility needs have been well documented in Calaveras County. Calaveras County adopted the *Regional Bicycle, Pedestrian, and Safe Routes to School Master Plan* in 2015 that included an overview of existing conditions, general needs, and recommendations for projects. 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 that 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.

TABLE 12: Existing Bicycle Facilities

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

Source: Calaveras County Regional Bicycle, Pedestrian, and Safe Routes to School Master Plan, 2015

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.

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

FIGURE 14
Calaveras County Bicycle Facilities

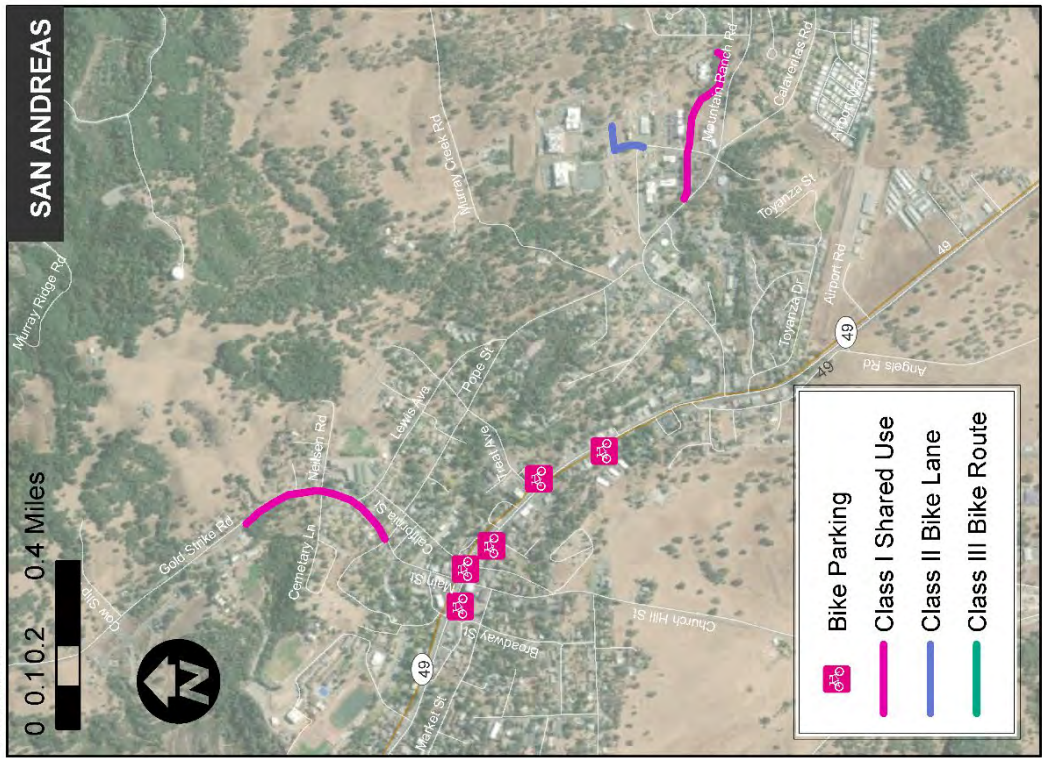
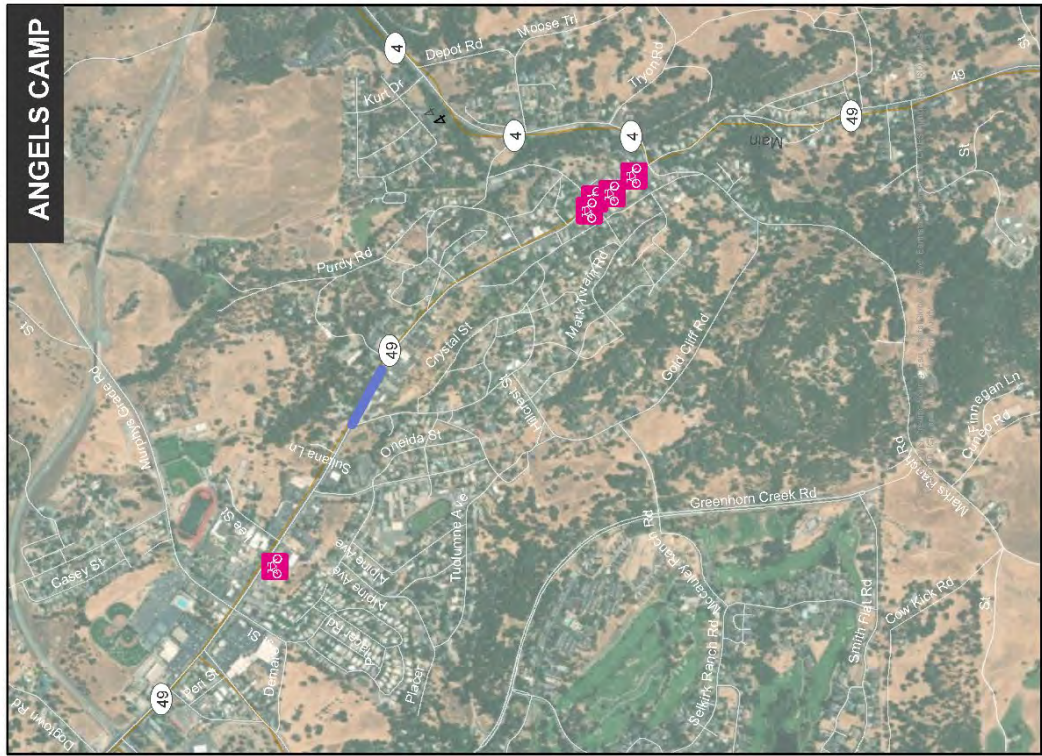


FIGURE 15
Calaveras County Bicycle Facilities

ARNOLD

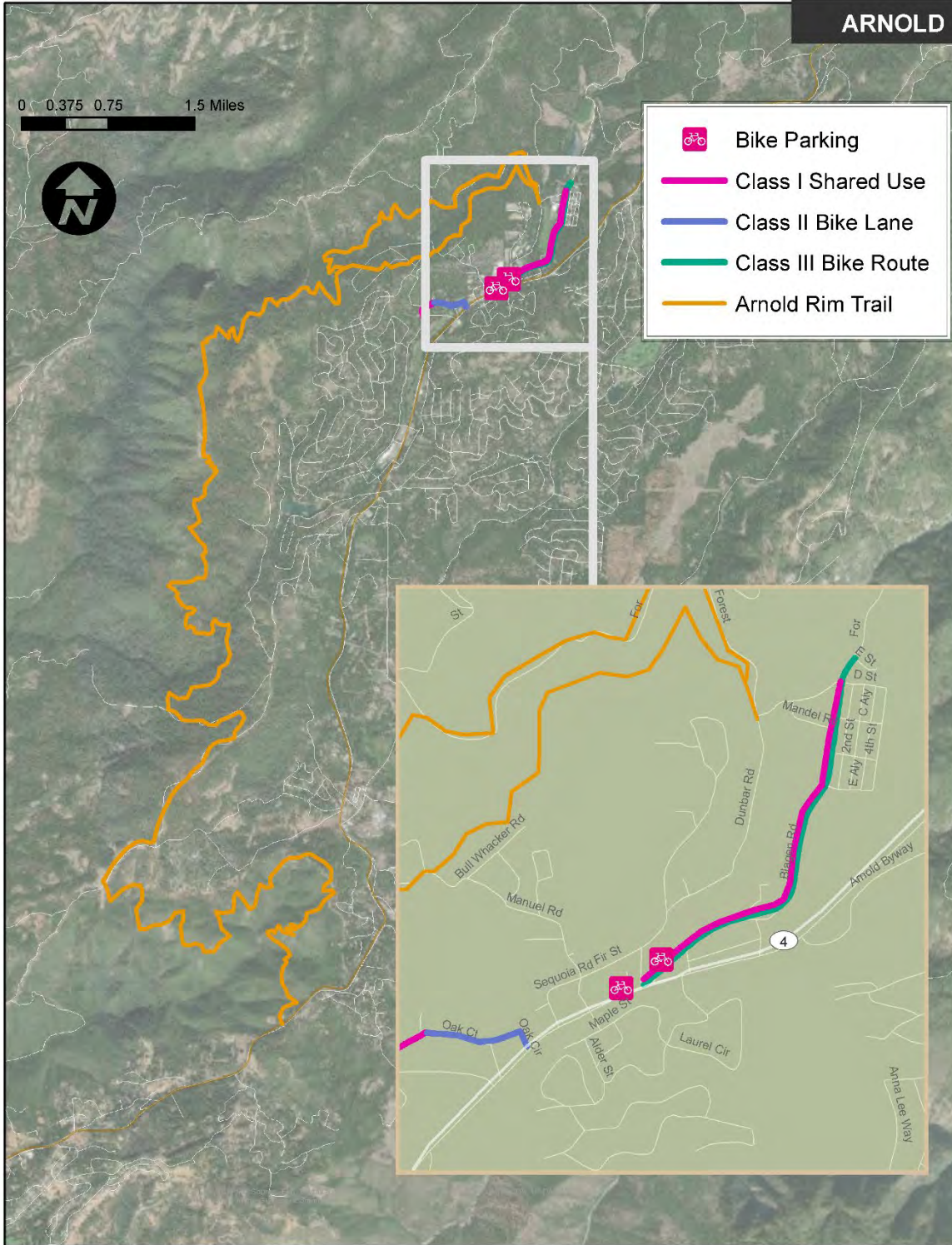
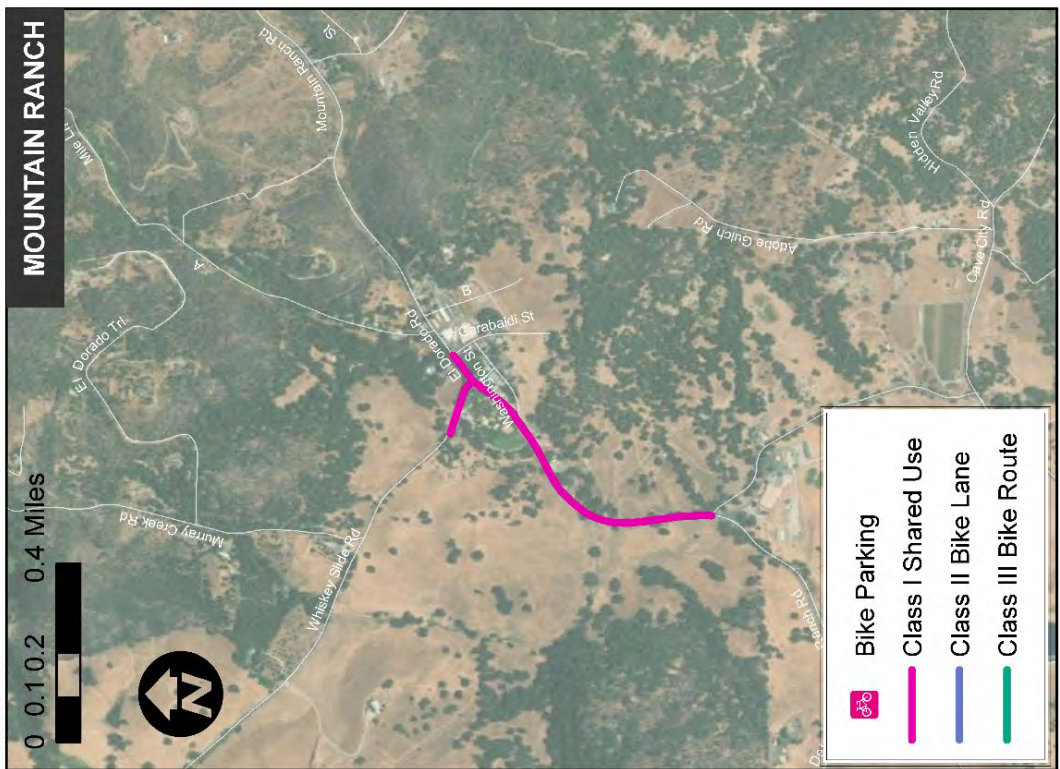
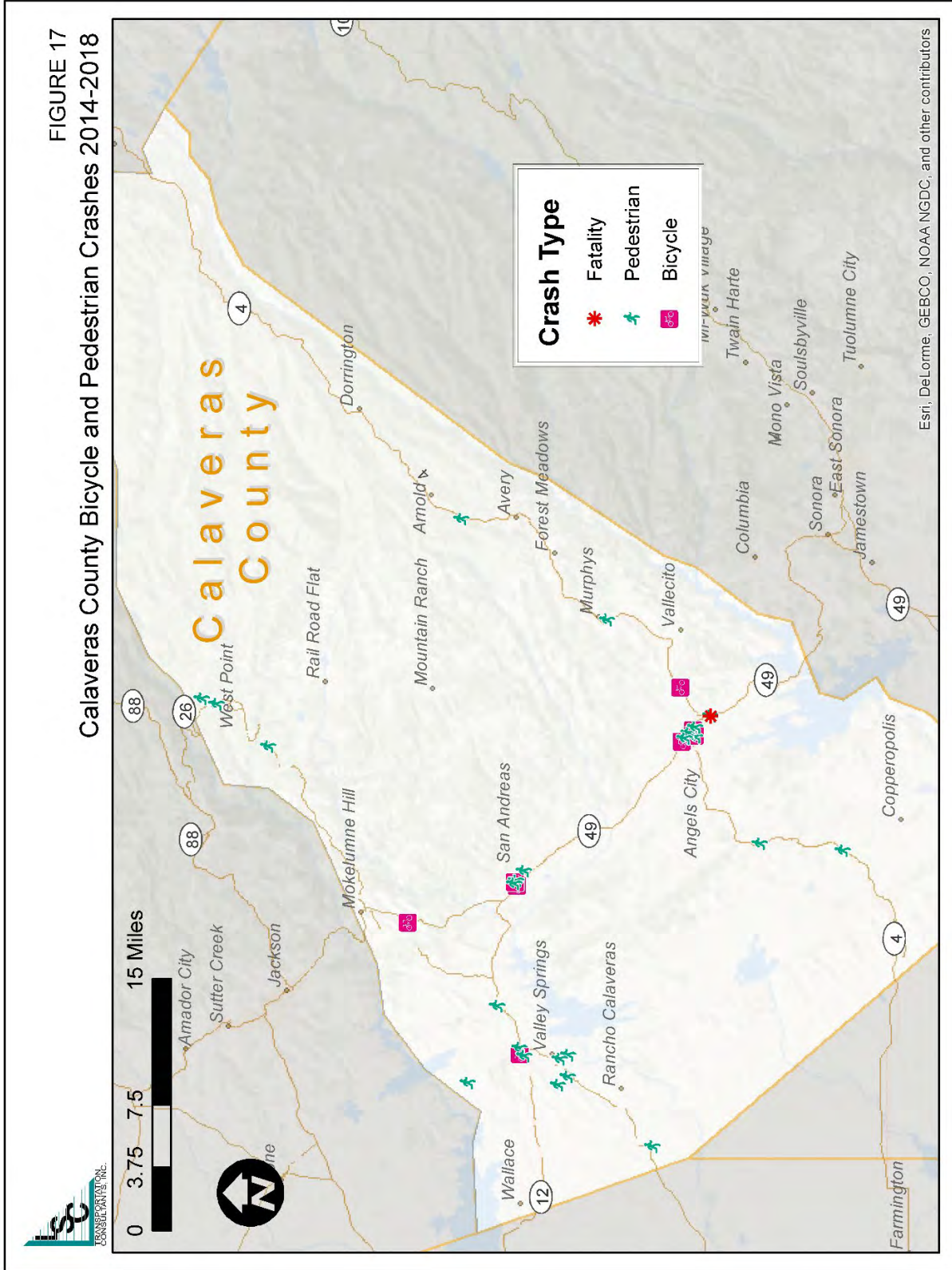


FIGURE 16
Calaveras County Bicycle Facilities



	Bike Parking
	Class I Shared Use
	Class II Bike Lane
	Class III Bike Route

FIGURE 17
Calaveras County Bicycle and Pedestrian Crashes 2014-2018



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

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

Transportation needs and concerns related to non-motorized transportation can be summarized as follows:

- Widen shoulders on state highways to reduce conflicts between cyclists and motorists, particularly 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
 - 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
 - Murphys

- Sidewalks along six-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, or 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.

- 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.

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 goods movement modes do not include rail.

Several businesses in Calaveras County that 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 non-motorized travelers, 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 presents 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-foot maximum or 53-foot maximum with kingpin-to-rear-axle (KPRI) of 40-foot maximum.
2. *STAA Truck with Double Trailer*—28-foot, six-inch maximum for semi-trailer and trailer.
3. *California Legal Truck with Single Trailer*—KPRI = 40-foot maximum (if two axles in rear); KPRI = 38 feet maximum (if one axle in rear); combination length = 65 feet maximum.
4. *California Legal Truck with Double Trailer*—28-foot, 6-inch maximum for semi-trailer and trailer with combination length of 75-foot maximum; or, either trailer or semi-trailer = 28-foot, 6-inch maximum and the other trailer has no limit with a combined length of 65-foot maximum.

All state highways are assigned route classifications that designate the permissible truck size for the route. In Calaveras County, STAA network routes consist 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 KPRI 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 that states the advised maximum KPRI 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.
- 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, seven-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 seven-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 Glencoe 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).

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 in Valley Springs, an area of significant future development over the long-term.

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	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%
	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.



Chapter 5

Policy Element

The purpose of the Policy Element of the RTP is to provide guidance to regional transportation decision makers and promote consistency among state, regional, and local agencies. California statutes, Government Code Section 65080 (b), states that the Policy Element must:

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

Transportation issues and needs were discussed by mode in Chapter 4. This chapter provides goals, objectives, and policies to assist in setting transportation priorities.

REGIONAL GOALS

An important element of the Regional Transportation Planning process is the development of valid and appropriate goals, objectives, and policies. The RTP guidelines define goals, objectives, and policies as follows:

- A **goal** is general in nature and characterized by a sense of timelessness. It is something desirable to work toward, the result for which effort is directed.
- An **objective** is a measurable point to be attained. They are capable of being quantified and realistically attained considering probable funding and political constraints. Objectives represent levels of achievement in movement toward a goal.
- The scale by which the attainment of an objective is measured is defined as a **performance measure**. Performance measurement involves examining the performance of the existing system as well as forecasting the performance of the future (planned) system. By examining the performance of the existing system over time, CCOG can monitor trends and identify regional transportation needs that may be considered when updating the RTP. The purpose of performance measurements is to clarify the link between transportation decisions and eventual outcomes, thereby improving the discussion of planning options and communication with the general public. In addition, they can assist in determining what improvements provide the best means for maximizing the system's performance within the given budget and other constraints.
- A **policy** is a direction statement that guides decisions with specific actions.

The goals, objectives, and policies for each component of the Calaveras County regional transportation system are discussed below. They cover both short-range (0 – 10 years) and long-range (11 – 20 years) desired outcomes. They are consistent with the policy direction of the CCOG, the *Calaveras County General Plan Circulation Element 2019*, *Angels Camp General Plan 2020*, the *California Strategic Highway Safety Plan*, and the *California Transportation Plan 2050* (CTP 2050).

The CTP 2050 identifies the following transportation vision for California:

A safe, resilient, and universally accessible transportation system that supports vibrant communities, advances racial and economic justice, and improves public and environmental health.

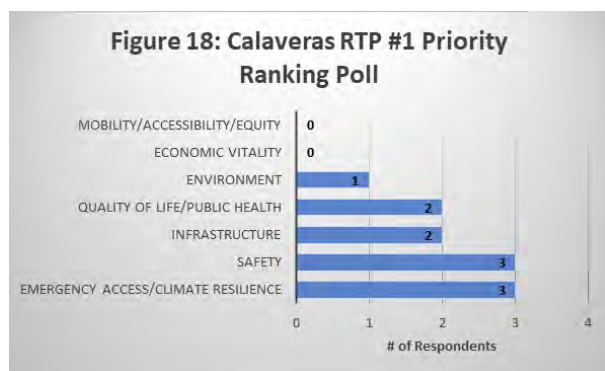
The CTP is the state’s roadmap for implementing this vision. More specifically, the CTP 2050 set forth the following goals:

1. *Safety*—Provide a safe and secure transportation system.
2. *Climate*—Achieve statewide GHG emissions reductions targets and increase resilience to climate change.
3. *Equity*—Eliminate transportation burdens for low-income communities, communities of color, people with disabilities and other disadvantaged groups.
4. *Accessibility*—Improve multi-modal mobility and access to destinations for all users.
5. *Quality of Life and Public Health*—Enable vibrant and healthy communities.
6. *Economy*—Support a vibrant resilient economy.
7. *Environment*—Enhance environmental health and reduce negative transportation impacts.
8. *Infrastructure*—Maintain a high-quality resilient transportation system.

The comprehensive goals, objectives, and policies that have been developed for this RTP meet the needs of the region and are consistent with the regional vision and priorities for action. These objectives are intended to guide the development of a transportation system that is balanced, multi-modal and will maintain and improve the quality of life for residents and visitors of Calaveras County. For this 2021 RTP update the Policy Element was revised to better reflect the goals of the CTP 2050.

CCOG GOAL SETTING

As a basis for the development of goals, objectives, performance measures and policies, as well as for future project-level decision-making, the RTP consultant held a “Policy Workshop” with CCOG board members in February 2021. The workshop first provided an overview of the RTP process and specific community input regarding transportation issues in Calaveras County. Board members were then asked to rank a list of transportation issues categorized by modal element as to how concerned they were about the issue. (Results of this exercise are presented in Appendix G.) Next, workshop attendees were presented a list of seven goals, which were based on the CTP 2050 goal categories and asked to rank them in order of priority. Figure 18 presents how board members ranked their number one goal priority. Figure 19 presents the combined goal weighting for all seven goals. For both exercises, “Emergency Access/Climate Resilience” and “Safety” rose to the top as high priority goals for regional transportation in Calaveras County.



Board input received as part of this workshop was used to update the 2021 RTP goals, objectives, and policies outlined below.

Goals, Objectives, and Policies

Goal 1: Safety—Provide a safe and secure transportation system.

Objective 1A: Secure funding to improve safety on State highways and local roadways.

Policy 1.1—The CCOG will coordinate with Caltrans to fund safety projects that address the Challenge Areas described in the California Strategic Highway Safety Plan.

Policy 1.2—Coordinate with local agencies to maintain updated safety data through special studies or systemic safety analyses necessary to identify safety issues and secure funding.

Policy 1.3—Seek funding to assist local jurisdictions in implementing community transportation and corridor studies such as the Calaveras Systemic Safety Analysis Report (SSARP).

Objective 1B: Develop and retrofit transportation facilities and corridors to improve safety, enhance community character, and improve multi-modal mobility.

Policy 1.4—Provide support for local jurisdictions to identify, prioritize, and eliminate conditions on local and regional roadways that currently or may pose a safety risk in coordination with Caltrans and local jurisdictions.

Policy 1.5—Continue to evaluate accident data along the State Highways and work with Caltrans on planning for shoulder improvements to improve to reduce conflicts between goods movement, vehicles, and non-motorized users.

Objective 1B: Reduce the number of bicycle and pedestrian related injuries and fatalities.

Policy 1.6—Annually review the number of bicycle and pedestrian related collisions to identify and implement projects identified in this plan.

Policy 1.7—Work with Caltrans to develop standards for crosswalks, signage, lighting, travel lanes, and speed limits that enhance pedestrian travel, and to provide pedestrian facilities and crosswalks along State highways as needed to improve safety and provide connectivity between commercial areas, residential areas, recreational areas, schools, and the transit system.

Policy 1.8—Complete Streets strategies should be utilized to improve safety between modes. Complete Streets are multimodal improvement projects that insert bicycle, pedestrian and traffic-calming elements onto roadways, such as green painted bike lanes and hardscape.

Goal 2: Emergency Access/Climate Resilience—Provide a transportation system that allows for safe and efficient evacuation and is adaptable to future changes in weather patterns.

Objective 2A: Support transportation planning and programs that aid in achieving regional air quality goals and develop strategies to lessen the impacts of severe weather events and wildfire.

Policy 2.1—Coordinate with local agencies, Caltrans, and other partners to prioritize transportation projects that minimize vehicle emissions while providing cost effective movement of people and freight.

Policy 2.2—Work with local jurisdictions and first responders to develop strategies to lessen the impacts on the transportation system due to severe weather events and wildfire.

Policy 2.3—Work with state, regional, and local partners to develop a strategy to identify the necessary infrastructure and policies to support electric vehicle charging integration and other alternative fuel sources into the existing transportation frameworks.

Policy 2.4—Work with local jurisdictions to improve and extend broadband, Wi-Fi, and digital infrastructure to remote areas to promote telecommuting, telemedicine, and improved communications during emergencies.

Objective 2B: Integrate land use decisions with the existing and future capacities of the transportation system and consider impacts of emergency evacuation.

Policy 2.5—Consider the transportation impacts of an emergency evacuation when evaluating major land use decisions and make transportation capacity decisions consistent with the capacity constraints of the regional transportation system.

Policy 2.6—Work with local jurisdictions to review and assess the impact of new development proposals on transportation system demand and emergency scenarios.

Policy 2.7—Continue to provide input on development proposals to ensure the region’s transportation goals, objectives, and policies are achieved.

Objective 2C: Enhance, maintain, and improve the Calaveras County Airport in order to support general aviation and disaster emergency services.

Policy 2.8—Support AIP projects to improve the Calaveras County Airport.

Objective 2D: Facilitate collaboration between public transit, human service agencies, and emergency services to support low income, elderly, and other disadvantaged groups during times of emergency.

Policy 2.9—Implement Emergency Services Coordination Strategies of the Coordinated Public Transit Human Services Transportation Plan.

Goal 3: Infrastructure—Maintain a high-quality transportation system.

Objective 3A: Maintain the existing transportation system at a standard that furthers its life and viability while continuing to support the county’s current and future transportation needs.

Policy 3.1—Support local jurisdictions in the development and maintenance of transportation and roadway impact mitigation fee programs that will support the upgrade and reconstruction of existing and future roads.

Policy 3.2—Support local jurisdictions to maintain and implement pavement management programs that strategically identify and prioritize maintenance and rehabilitation projects.

Objective 3B: Reduce the backlog of “deferred maintenance.”

Policy 3.3—Program rehabilitation and maintenance projects that will increase the overall PCI for the county and reduce the need for more costlier rehabilitation projects in the county.

Objective 3C: Maintain a safe and effective public transit system.

Policy 3.4—Work with Calaveras Transit Agency and other state and federal agencies to both support and advocate for an ongoing funding source that funds fleet replacement and maintains a safe fleet within established useful life standards.

Policy 3.5—Program transit capital improvement projects that result in a decrease in ongoing and long-term maintenance costs and improve safety.

Goal 4: Quality of Life/Public Health—Enable vibrant and healthy communities.

Objective 4A: Promote pedestrian and bicycle travel mode share so as to increase overall public health.

Policy 4.1—Support land use patterns that provide for infill, are transit oriented, bicycle and pedestrian friendly, and provide for efficient use of underdeveloped land, and existing and planned transportation resources.

Policy 4.2—Encourage Caltrans and local jurisdictions to consider and incorporate Context-Sensitive Solutions and flexible design when planning and designing roadway and multimodal improvements that fit in with the local context and environment.

Policy 4.3—Provide safe and convenient non-motorized access to existing and future transit stops and facilities within Calaveras County.

Policy 4.4—Integrate non-motorized facilities as part of the design and construction of new roadways and, where warranted, upgrades or resurfacing of existing roadways within existing surface width.

Objective 4B: Enhance opportunities for safe bicycle and pedestrian travel on and across state highways and local roadways.

Policy 4.5—Pursue discretionary grant-funding programs for implementing the bicycle and pedestrian improvements listed in this plan.

Policy 4.6—Program shoulder improvements and traffic calming strategies where appropriate to enhance pedestrian/non-motorized travel.

Policy 4.7—Support Safe Routes to Schools projects that increase the safety and numbers of students walking and biking to school.

Policy 4.8—Prioritize projects that close gaps in the existing bicycle and pedestrian network.

Policy 4.9—Introduce and promote education, encouragement, and outreach programs for bicycle and pedestrian travel.

Goal 5: Environment—Enhance environmental health and reduce negative transportation impacts.

Objective 5A: Reduce the demand for travel by single-occupant vehicles through transportation demand management and transportation system management techniques.

Policy 5.1—Increase the mode share for public transit and non-motorized travel through operational improvements and construction of bicycle, pedestrian, and park-and-ride facilities.

Policy 5.2—Support public awareness of Calaveras Transit and bicycle and pedestrian options among residents and visitors through media and promotional events.

Policy 5.5—Encourage compact development patterns to minimize construction of roads and impacts to agricultural operations and open space.

Policy 5.6—Encourage local jurisdictions to seek a balance of housing and employment land uses to improve the jobs/housing balance and encourage the use of transit and/or active modes for daily trips.

Policy 5.7—Encourage local land use planning and community design, which minimizes dependence on long-distance, single-occupant vehicle commute trips.

Objective 5B: Promote transportation policies and projects that support a sustainable environment and positively contribute to meeting statewide global warming emissions targets set in the Global Warming Solutions Act of 2006 (AB 32).

Policy 5.8—Coordinate with federal and state agencies and local air management districts on matters related to the air quality conformity process specified in the latest federal clean air requirements and legislation for transportation projects (transportation related).

Policy 5.9—Consider alternative transportation technologies, such as micro-transit and electric car or bike share programs.

Policy 5.10 - Coordinate with local and neighboring jurisdictions to identify mutually beneficial programs, projects, or partnership opportunities aimed at reducing or offsetting regionally produced mobile source GHG emissions.

Objective 5C: Support and program projects to expand Electric Vehicle (EV) Infrastructure.

Policy 5.11—Support projects listed in the *Central Sierra EV Plan*.

Policy 5.12—Support and program projects listed in the *Calaveras Transit Agency Zero-Emission Bus Rollout Plan*.

Goal 6: Mobility/Accessibility/Equity—Provide a high degree of mobility and reliability for people and goods in Calaveras County using multimodal solutions, which provide accessibility to goods and services for all residents and preserve the rural character of the region.

Objective 6A: Provide a regional transportation system that is safe and accessible to all types of users regardless of income level, race, and age.

Policy 6.1—Encourage the development of mobility improvement projects to equitably support disadvantaged communities and ensure that community values and regional character are protected and enhanced.

Policy 6.2—Coordinate with local jurisdictions to provide effective transportation choices for a diverse population including aging, youth, and persons with disabilities.

Policy 6.3—Coordinate with Calaveras Transit Agency, neighboring transit systems, and non-profit and social service agencies to support transit trips into and out of Calaveras County for employment, education, medical, tourism, and recreation travel purposes.

Policy 6.4—Work with local jurisdictions to encourage development of active transportation facilities that provide access to transit stops and other multi-modal facilities.

Policy 6.5—Work with local jurisdictions to consider transit accessibility for projects and investments.

Policy 6.6—Encourage the transit operator to utilize developments in technology, such as mobile device applications and other intelligent transportation systems, to inform transit users of available service and monitor transit vehicles in order to optimize routes where feasible.

Policy 6.7—Market the availability of transit service information to likely transit users including educational, commercial, recreational, and employment.

Objective 6B: Utilize open and equitable processes to scope, prioritize, fund, and construct transportation projects.

Policy 6.8—Incorporate public outreach as a fundamental component of transportation planning and decision-making process, encouraging input from all interested and affected groups and individuals.

Policy 6.9—Public participation efforts will be implemented to include interested residents, under-represented and disadvantaged groups and other stakeholders in the decision-making process for transportation projects.

Policy 6.10—Include, in project analysis, the identification and mitigation of all impacts on all affected segments of the population, particularly disadvantaged communities.

Policy 6.11—Promote equity for all users and modes by focusing efforts on implementation of Complete Streets elements in all projects.

Policy 6.12—Design transportation facilities to meet the needs of all users including older adults, children, and people with disabilities.

Objective 6C: Promote a transit system that is responsive to the needs of the transit-dependent persons.

Policy 6.13—Update and implement the strategies identified in the *Coordinated Public Transit-Human Services Transportation Plan* in coordination with Calaveras Transit Agency.

Policy 6.14—Work with transit providers and social service transportation providers to improve or increase transit services to rural and remote areas.

Policy 6.15—Support pilot transit programs and promote coordination opportunities with local private or non-profit organizations, school district, and adjacent counties to meet the needs of transit-dependent populations in locations not adequately or appropriately served by public transit.

Policy 6.16—Coordinate with senior living facilities, healthcare clinics, and other transportation providers and servicers of seniors and people with disabilities.

Objective 6D: Maintain acceptable vehicle miles traveled (VMT) on all County roads and State highways by supporting appropriate land use decisions and implementing multi-modal improvement projects.

Policy 6.17—Support local jurisdictions in establishing and updating traffic study guidelines that meet statewide, regional, and local VMT requirements and goals.

Objective 6E: Improve connectivity between key destinations in the community, including residential areas and commercial areas, employment centers, schools, and recreation areas.

Policy 6.18—Implement projects that reduce travel time between key destinations and infill land use development.

Goal 7: Economic Vitality—Support a resilient economy.

Objective 7A: Maintain and promote the desirability of the region by directing appropriate investment to the transportation infrastructure.

Policy 7.1—Plan transportation improvements in and around business districts and tourist attractions that will enhance traffic circulation and the character of the community.

Objective 7B: Provide for truck travel on County facilities that can safely accommodate heavier vehicles.

Policy 7.2—Install passing lanes, turnouts, shoulders, designated routes, and other low-cost improvements to minimize adverse traffic impacts from truck traffic and improve goods movement.

Policy 7.3—Implement transportation projects that increase safety for trucks and promote efficient truck access to commercial, industrial, and agricultural land uses.

Policy 7.4—Consider the safety and desirability of local communities when making goods movement decisions.

Objective 7C: Support active transportation that promotes and improves tourism and economic development.

Policy 7.5—Partner with tourism and economic development agencies to implement educational and promotional programs that promote safe bicycle tourism.

Policy 7.6—Support existing programs and establish new programs to promote Calaveras County and its communities as destinations for active recreation where appropriate.

Chapter 6

Action Element

This chapter presents a plan to address the needs and issues for all transportation modes, in accordance with the goals, objectives, and policies set forth in the Policy Element. It is within the Action Element that projects, and programs are prioritized as short-term or long-term improvements, consistent with the identified needs and policies. These plans are based on the existing conditions, forecasts for future conditions and transportation needs discussed in the Background Conditions Section, Modal Element and Policy Element and are consistent with the Financial Element.

PLAN ASSUMPTIONS

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

- **Environmental Conditions**—No change is assumed in attainment status for air or water quality affecting transportation projects.
- **Travel Mode**—The private automobile will remain the primary mode of transportation for residents and visitors. Public transportation will remain a vital service for the elderly, low-income, and for persons with mobility limitations. Bicycle and pedestrian travel will increase modestly, for both recreational and utility purposes.
- **Changes in Truck Traffic**—The proportion of truck traffic on State highways will increase slightly during the planning period. Truck traffic will grow with respect to population growth, which is projected to slowly increase as well as overall goods movement throughout the state.
- **Recreational Travel**—Recreation-oriented local travel will continue to have a major impact on state highways in the county as well as intra-county visitor travel. There may be a small impact on public transit services that serve communities with high seasonal home rates and recreation destinations.
- **Transit Service**—Public transportation will continue to be a vital service for the elderly, low-income and for persons with mobility limitations, particularly as the county ages in place.
- **Population Growth**—Calaveras County will experience steady but slow population growth. According to the Department of Finance, the County is expected to grow by an annual average of 0.6 percent. Population growth projections of neighboring counties are similar and will not impact the region significantly.

- **Planning Requirements**—New state and federal requirements with respect to climate change and greenhouse gas emissions will continue to shape the planning process in the future. This RTP is a dynamic document, which will be updated as requirements change.
- **Emergency Preparedness**—Transportation and regional coordination will continue to play a vital role in emergency preparedness in Calaveras County.
- **Climate Change**—The region will continue to be affected by climate change. Particularly the impacts of wildland fires and subsequent erosion.

TRANSPORTATION SAFETY

Addressing transportation safety in a regional planning document puts the region on a path to improve health, financial, and quality of life issues for travelers. In the past, transportation safety has been addressed in a reactionary mode. There is a need to establish methods to proactively improve the safety of the transportation network. In response to this, California developed a Strategic Highway Safety Plan (SHSP) in 2006 and was last updated in 2021. The Goal of the plan is “Toward Zero Deaths” by using the 5E approach of: engineering, enforcement, education, emergency medical services and emerging technologies. The latest update of the SHSP identifies the following Challenge Areas:

State High Priority Areas

- Active Transportation: Pedestrians & Bicyclists
- Impaired Driving
- Intersections
- Lane Departures
- Speed Management/Aggressive Driving

State Focus Areas

- | | |
|--|--|
| <ul style="list-style-type: none"> • Aging Drivers (equal to or greater than 65) • Commercial Vehicles • Distracted Driving • Driver Licensing • Emergency Response | <ul style="list-style-type: none"> • Emerging Technologies • Motorcyclists • Occupant Protection • Work Zones • Young Drivers (15–20) |
|--|--|

Calaveras County Systemic Safety Analysis Report

Transportation Safety is an important factor in Calaveras County. As noted above in the Policy Element, safety was identified by the CCOG board as one of the top priority goals for the region. As such, in 2018 CCOG worked with Mark Thomas Consultants to develop the Calaveras County Systemic Safety Analysis Report. The purpose of report is to help local agencies identify safety projects that could receive future Highway Safety Improvement Program (HSIP) funding. The report summarizes state collision data in an

effort to identify particularly unsafe locations and identify transportation projects to improve safety at those locations. The report identified 17 roadway segments and three intersections where there were concentrations of collisions. Countermeasures were assigned to these focus areas to improve safety. These projects have been incorporated into the RTP project lists.

The policy element of this RTP includes safety goals and objectives that comply with the California Strategic Highway Safety Plan. Transportation improvement projects that specifically address safety for all types of transportation modes are included in the project list tables in this chapter. Transportation safety is a main concern for roadways and non-motorized transportation facilities in the Calaveras region.

TRANSPORTATION SECURITY/EMERGENCY PREPAREDNESS

Transportation security is another important element in the RTP. Separate from “transportation safety,” transportation security/emergency preparedness addresses issues associated with large-scale evacuations due to a natural disaster or terrorist attack. Emergency preparedness involves many aspects including training/education, planning appropriate responses to possible emergencies, and communication between fire protection and city as well as county government staff.

As this region is rural and not densely populated, it is not likely that Calaveras County would be the focus of a terrorist attack or become a refuge for persons displaced by an attack or natural disaster elsewhere in the state. In the Calaveras County region, forced evacuation due to wildfire, flood or landslide is the most likely emergency scenario.

Calaveras County and the City of Angels have Hazard Mitigation Plans in place. The purpose of the plans are to reduce or eliminate long-term risk to people and property from natural disasters and hazards. Calaveras County also has an Emergency Operations Plan (EOP). The EOP outlines the functions, responsibilities, and regional risk assessments of Calaveras County for large scale emergencies (i.e., wildland fires, hazardous materials incidents, flooding, dam failure, light airplane crashes, etc.) and sets forth the planned response for managing these incidents. The plan addresses initial and extended emergency response and the recovery process.

In conjunction with CAL FIRE, Calaveras County OES, and the Calaveras County Sheriff’s Office, a new Emergency Evacuation System has been created. This system is designed to alert the public in the event of both large scale and smaller localized emergency evacuation events. During an emergency, the (online) viewer will display important information defining that event. The county has been divided into 60 grid pages and further divided into 307, two-mile by two-mile evacuation zones. These zones are used to identify areas determined to be under an active evacuation.

In the event of a natural disaster, Calaveras Connect can be made available to transport evacuees. The one publicly operated airport in Calaveras County is available for emergency evacuation. In preparation for wildfire, a safe corridor, devoid of brush and trees, should be established along state highways and local roadways. This will reduce the roadway’s exposure to wildfire allowing for improved ingress/egress during an emergency or snow removal.

The best preventative measures with respect to this document for an emergency evacuation would be to continue to implement projects in the RTP that upgrade and maintain roadways, airport facilities, public transit, and broadband internet service (to better notify residents).

ENVIRONMENTAL MITIGATION

As recommended in the 2017 RTP Guidelines, in addition to conducting environmental review as per CEQA, this document includes a discussion of potential environmental mitigation activities and areas, including those mitigation activities that might maintain or restore the environment that is affected by the plan.

All RTP projects that will have a potential impact on natural resources in the region will undergo individual CEQA environmental review. When considering a transportation improvement project, the first course of action will be to consult with natural resource agencies to determine the potential impact of the project. Any changes or reconfiguration to the project that will limit environmental impact will be pursued. BMPs will be followed, and mitigation measures employed, to reduce project impacts. Prior to implementing RTP project, CCOG will consider the potential for release of hazardous substances during construction and follow standard evaluation and mitigation practices for toxic substances.

As part of the public participation process (described in Chapter 1 and documented in Appendix D), state and federal resource agencies were contacted and maps of natural resources under each agency's jurisdiction were requested. Multiple agencies were contacted at the beginning of the RTP update process and will be notified of the availability of the Draft RTP document. Natural resource agency maps and documents were compared to this RTP to find potential conflicts between transportation improvement projects and natural resources. The details of these comparisons and natural resource agency input are summarized in the Consultation section of Chapter 1.

As part of the environmental review process the Central Valley Regional Water Quality Control Board provided recommendations and guidance requirements with respect to water quality when implementing RTP projects. These recommendations are included as part of Appendix B.

CALAVERAS COUNTY STRATEGIES TO REDUCE GHG EMISSIONS

Global climate change is an important issue that is closely related to transportation. Climate change is caused by the release of greenhouse gases (GHG's) such as carbon dioxide, methane, nitrous oxide, hydro fluorocarbons, perfluorocarbons, and sulfur hexafluoride into the atmosphere; these gases trap heat and increase temperatures near the earth's surface. Motorized vehicles emit carbon dioxide and are large contributors to GHG emissions. In fact, according to the CARB GHG Inventory for 2016, transportation accounts for roughly 41 percent of total GHG emissions in California. Forecasted, long-term consequences of climate change range from a rise in the sea level to a significant loss of the Sierra snowpack. Despite potentially devastating long-term effects, climate change does not have immediately visible effects such as smog. However, GHG emissions are an important air quality issue that needs to be addressed in regional transportation planning documents.

RTPAs that are not located within the boundaries of a metropolitan planning organization (which CCOG is not) are not subject to the SB 375 provisions, which require addressing regional GHG targets in the RTP and preparation of sustainable community strategies. As demonstrated in Chapter 2, overall traffic volumes on Calaveras County state highways have generally decreased in the last ten years, with the exception of near the Stanislaus County line and Vallecito. As such, the Calaveras County region is not a significant contributor to GHG emissions. Regardless, this RTP identifies improvements to bicycle and pedestrian facilities that will encourage residents and visitors to use alternatives to the private vehicle for transportation, thereby helping to reduce GHG emissions.

Given the importance of the consideration of climate change in transportation planning, this RTP outlines the following strategies to reduce GHG emissions:

- *Continue to Prioritize Regional Transportation System Maintenance over Expansion*—One GHG reduction strategy that is repeatedly identified in legislation and policy documents is to reduce VMT by implementing smart growth strategies, which concentrate land use expansion in urbanized cores where public transportation is available and increase the “walkability” of communities. Through the Board workshops conducted as part of this RTP update, it is clear that maintaining the existing transportation instead of increasing the capacity of the regional transportation system is a top priority for the region.
- *Implement Active Transportation Project Improvements*—Encouraging residents and visitors to walk or bike for short distance trips is another common strategy to reduce GHG emissions. CCOG has recently conducted multiple corridor studies in the primary Calaveras County communities which recommend a variety of improvements to increase safety for non-motorized travelers. These projects have been incorporated into the project lists.
- *Implement Transit System Improvements*—Although there is limited funding available for public transit in Calaveras County, the need for transit has clearly been demonstrated. Continuing to improve public transit service by replacing aged vehicles and improvements to passenger facilities would make the transit system more visible and thereby encourage non-regular riders or visitors to utilize the bus system.

TRANSPORTATION SYSTEM IMPROVEMENTS

As a method of developing responses to the transportation needs and issues discussed in the earlier portions of this document, this RTP includes a list of transportation system improvements for each mode of transportation applicable to Calaveras County. This RTP lists both financially constrained and financially unconstrained improvements. Financially constrained projects are funded over the short- and long-term periods as demonstrated in the Financial Element. The unconstrained project list is considered a “wish list” of projects that would provide benefit to the region but will unlikely receive funding over the next 20 years unless new funding sources become available.

Performance Measures

As available transportation funding is not sufficient to cover all project costs, it is important to establish a method of comparing the benefits of various transportation projects and considering the cost effectiveness of proposed projects. According to the RTP guidelines, performance measures outlined in the RTP should set the context for judging the effectiveness of the Regional Transportation Improvement Program (RTIP) as a program. More detailed project specific performance measures used to quantitatively evaluate the benefit of a transportation improvement project should be addressed every two years in the region's RTIP.

Performance targets are numeric goals established to enable the quantifiable assessment of performance measures. Performance monitoring indicators or metrics include field data such as VMT, mode share, accident rates etc. Table 14 presents performance measures and performance targets for the Calaveras County region along with current performance of the regional transportation system. These performance measures build on performance measures identified in the 2017 RTP, the *Calaveras RTIP*, and the *Performance Monitoring Indicators Study* conducted by the Rural Counties Task Force. Generally, performance targets in Table 14 are based on performance levels for similar rural counties.

Table 14: Calaveras County Regional Transportation Performance Measures

Performance Measure	Current System	Performance	Source
Transportation System Investment (TSI)			
<u>County</u>			
PCI for County Major Collector/Significant Roads	54	70	2019 Pavement conditions report
PCI for County Residentials	49	60	2019 Pavement conditions report
<u>City</u>			
PCI for City Major Collectors	57	70	2019 Pavement conditions report
PCI for City Residentials	71	70	2019 Pavement conditions report
<u>Public Transit</u>			
% of vehicles which have surpassed useful life	0%	<10%	Calaveras Connect
Safety (S)			
Total crashes per capita	0.014	0.012	SWITRS 2018 Collision Summary, American Community Survey, includes PDO accidents
# of Bicycle/pedestrian accidents	8	4	SWITRS 2018 Collision Summary
# of Fatal crashes	12	8	SWITRS 2018 Collision Summary
Total crashes per million VMT	1.50584	1.4	2018 California Public Road Data
Environmental and Health Sustainability (E)			
Walk commute mode split	1.3%	5.0%	2019 American Community Survey
Bicycle commute mode split	0.1%	2.0%	2019 American Community Survey
Mobility/Accessibility (MA)			
VMT per capita	9,020	7,577	2018 California Public Road Data, American Community Survey
Economic Sustainability (ES)			
Number of Class I bike path miles	2.5	Increase	Bicycle Plan

Transportation System Investment (TSI)

Description: Maintaining regional roadways in satisfactory condition is a top priority for the region. By performing routine roadway maintenance, Calaveras County will reduce the need for larger roadway rehabilitation projects in the future. Transportation System investment also applies to public transit infrastructure.

Current Baseline Performance: The Calaveras County Department of Public Works last updated their Pavement Management Program in 2019. The average PCI for county roadways is 51 with just under 20 percent of roadways considered in “Good” condition. Roadways that are in good condition generally only need crack seal and micro-surfacing maintenance. The PCI for major collectors and significant roadways in the county is 54. The City of Angels Camp streets have a higher average PCI of 70 with 56 percent of roadways in good condition according to the City’s Pavement Management Report. The PCI for collectors in the city is 57 and 71 for residential roadways.

Transit vehicles are the most important capital investment for public transit. A newer vehicle is safer and requires less maintenance. In 2020, Calaveras Transit Agency’s public transit fleet had zero vehicles, which had surpassed their useful life.

Performance Target: The recommended PCI goal for County Collectors is 70; and 60 for Residentials. The recommended PCI goal for City of Angels camp collectors and residentials is 70.

A reasonable performance target for public transit is no more than 10 percent of transit vehicles have surpassed their useful life. Currently this would equate to one vehicle.

Safety

Description: Safety plays a large role in the consideration of transportation projects in the Calaveras County region. A reduction in the number of crashes per capita and per VMT are good quantitative measures of the impact of a project on regional safety. Most RTP projects will increase safety. For example, the region’s top priority project (Wagon Trail Realignment) will decrease accidents with the presence of shoulders, appropriate lane widths, and increased sight distance.

Current Baseline Performance: Collision data can be easily obtained from the California Highway Patrol Statewide Integrate Traffic Records System (SWITRS). Data including the total number of crashes, type of crash, and location of crash is available. As such, a variety of performance measures can be calculated. Using 2018 SWITRS data, and the most recent population figures from the US Census American Community Survey, Calaveras County has a baseline performance of .014 crashes per capita. In 2018, there were a total of 8 bicycle or pedestrian accidents and 12 crashes of any type that involved a fatality. The Highway Performance Monitoring System California Public Road Data provides estimates of Vehicle Miles Travelled (VMT) for each county in the state. Applying VMT data to collision data equates to a baseline performance of 1.505 crashes per million VMT.

Performance Target: “Toward Zero Deaths” is the national vision for the highway system. This is the idea that one fatality is too many, but actually achieving zero fatalities may be impossible. In the spirit of this vision, the safety performance targets represent a lower level of crashes than baseline. The 2017 RTP indicated a performance target of reducing bicycle and pedestrian related fatalities and injuries by 50 percent from 2010 levels. For each RTP update, these performance targets should be reevaluated and adjusted lower to get closer to zero fatalities.

Environmental and Health Sustainability

Description: The state of California has established environmental goals to reduce Greenhouse Gas (GHG) emissions to 40 percent and 80 percent of 1990 levels by 2030 and 2050, respectively. Vehicle emissions are a significant contributor to GHG emissions. One way to measure a change in vehicle emissions is by looking at mode split. Capital improvement projects which make walking and bicycling safer and more convenient will increase the walk/bike mode split and decrease vehicle emissions. These types of non-motorized facility projects also have the additional benefit of improving overall public health.

Current Baseline Performance: Commute mode split data is available through the US Census American Community Survey. As of 2017, the latest data available, the walk commute mode split for Calaveras County employed residents was 1.2 percent. The proportion of employees bicycling to work was even lower at 0.1 percent.

Performance Target: Rural counties such as Calaveras tend to have dispersed communities long distances apart, making intra-community travel by bicycle or foot challenging. However, there is opportunity to improve non-motorized safety within each of the Calaveras County communities as shown in the project lists. Performance targets were set for this performance measure by looking at commute mode splits for other rural communities.

Mobility/Accessibility

Description: Measuring levels of congestion and delay on roadways has long been used as a tool for evaluating performance and the need for transportation improvement projects. Congestion measured in terms of LOS was considered an “impact” in the California Environmental Quality Act (CEQA) process. Historically, agencies would increase capacity of the transportation system to correct the problem. This only leads to more cars on the roadway and increased GHG emissions.

SB 743 changed the way that congestion should be mitigated through the CEQA environmental process. Congestion in terms of LOS can no longer be considered a significant impact resulting from a development project which is subject to CEQA review. Now, through the CEQA process it must be determined how the project will impact VMT. The goal is to reduce the amount of driving instead of increasing it. Methods of reducing VMT include increasing transit options, facilitating biking and walking, changing development patterns, and charging for parking. VMT per capita is an accepted performance measure for determining a transportation project’s impact on congestion.

Current Baseline Performance: As stated above VMT estimates are available through the Highway Performance Monitoring System California Public Road Data. According to this data, VMT per capita in Calaveras County is 9,020.

Performance Target: Reducing VMT per capita is consistent with statewide goals. Calaveras County is in the process of developing VMT thresholds to be consistent with SB 743. The most recent guidance from CARB suggests that reducing VMT for light duty vehicles to 16 percent below existing levels is in line with state climate change goals.

Economic Sustainability

Description: Calaveras County has a multitude of visitor attractions and recreation opportunities. A safe, well maintained, and efficient transportation infrastructure is a key component to attracting visitors which provide important revenue for the region. The regional transportation system must also be able to absorb the impact of seasonal influxes of visitors and associated traffic.

Current Baseline Performance: Recreation is one of the main visitor attractions in Calaveras County. Additionally, providing walkable communities increases the appeal of a community. Therefore, the number of class I bike path miles is a relevant performance indicator for economic sustainability.

Performance Target: Increasing the mileage of Class I bike paths throughout the county will increase economic sustainability.

Recently Completed Regional Transportation Projects

Table 15 and 16 provide detailed information for recently completed projects for Calaveras County and Angels Camp, respectively. Completed projects include storm damage repair, non-motorized projects, and improvements in the Copperopolis Benefit Basin.

Proposed Capital Improvements to Meet Transportation Needs

Proposed transportation improvement projects are listed in Tables 17-21 and Appendix H. Projects are categorized by funded status, transportation mode, project type and community location. Funded projects are linked to one of the performance measures described above. The RTP improvement projects are consistent with those included in the Interregional Transportation Improvement Program (ITIP), Federal Transportation Improvement Program (FTIP) and the 2020 Regional Transportation Improvement Program (RTIP).

Improvements to address both short-term (10 years) and long-term (20 years) transportation needs are included in this RTP. Transportation improvement projects are most broadly classified as funded or unfunded (financially unconstrained). The unfunded project list is considered a “wish list” of projects that would provide benefit to the region but will unlikely receive funding over the next 20 years unless new

funding sources become available. Unfunded projects are further grouped as “high priority” and “medium to low priority” and by community location.

Determining exact construction costs of transportation projects is difficult, especially for long-term projects. Over recent years, construction prices have varied greatly. To produce a realistic view of the Calaveras County region’s transportation improvement costs, the cost estimates in the ensuing tables have been adjusted for inflation. A projected annual rate of inflation of 2.0 percent was applied to RTP projects. Funded projects are presented in Table 17 (County) and Table 18 (City) and discussed below.

Top Priority Funded Projects (Short-Term)

Plan Level Purpose and Needs

Funded RTP projects located in the jurisdiction of Calaveras County are listed in Table 17. The Calaveras County region’s top priority project is construction of the Westerly Segment of the SR 4 Wagon Trail Project. This is a regionally significant project. This project will correct substandard curves along SR 4 west of Copperopolis between Bonanza Mine and Appaloosa. Multiple accidents and one fatality have occurred in this section of highway that is reminiscent of actual wagon trail roads. The project will improve goods movement as it will make the section of highway STAA compatible as well as significantly improve pavement conditions. As SR 4 connects Calaveras County to the central valley, this project will also improve interregional connectivity. Phase I (between Bonanza Mine and Appaloosa) is funded with STIP, SHOP, RIM and SB 1 funds (refer to the Financial Element for a description of each of these funding sources). Potential future phases of Wagon Trail would extend roadway realignment and reconstruction to Stockton Road. These are currently unfunded. The Wagon Trail project will address safety, mobility/accessibility economic sustainability and transportation system investment performance measures.

Other funded RTP projects located in Calaveras County include multiple bridge replacement and rehabilitation projects and winter storm damage repair which will address safety concerns.

City of Angels funded projects (Table 18) include Caltrans multimodal improvements funded through the SHOPP program as well as environmental work for the Angels Trail.

Guidance for Prioritizing Unfunded Projects

On May 5, 2021, a second workshop was held with the CCOG board to discuss the proposed RTP project lists and guidance for prioritizing unfunded projects going forward. Board members, staff and the public were presented with four different scenarios as to how future transportation funding could be focused:

- *Maintenance Emphasis Alternative*—Maintaining existing roadways, bike paths, sidewalks, the transit system, and airport as opposed to constructing new facilities.

Table 15: Calaveras County Completed Capital Improvement Projects 2017-2020

County of Calaveras

Lead Agency	Funding Source	Project Type	Location	Description	Cost (In 1,000's)	Constr Year
Calaveras County						
County	FEMA, CalOES, County Discretionary	Emergency	Hawver Road	2017 Winter Storm Recovery	\$441	2020
County	HSIP, County Discretionary	Road	Camanche Pkwy, Jesus Maria, Milton, Mountain Ranch, Murphys Grade, O'Byrnes Ferry, Parrots Ferry, Pool Station and Railroad Flat Rds	Installed reflective delineators on both sides of curved segments of 9 major collectors	\$241	2020
County	HBP, Toll Credits	Bridge	Singletree Dr. over Little John's Creek	Replaced washed out low water crossing with new bridge	\$4,120	2020
County	HBP, Toll Credits	Bridge	Hogan Dam Rd at Bear Creek	Replaced low water crossing with new bridge	\$3,819	2020
County	RSTP, CMAQ, RIM	Road/Ped	Mt. Ranch Rd from SR 49 to 0.5 mi east	Roadway resurfacing; crosswalk installation with advance warning devices; construction of a bus shelter; and realignment of Pope Street to form a "T" intersection. Pedestrian crossing between Govt Center and Mark Twain Medical Center	\$1,765	2020
County	RIM & HBP	Bridge	Railroad Flat Road	Bridge Replacement	\$2,500	2018
County	FEMA, CalOES, County Discretionary	Emergency	Murphys Road at Moran Creek	Culvert replacement and roadway repairs from winter storm damage	\$580	2019
County	FEMA, County Discretionary	Emergency	Independence Rd	Debris removal, guardrail replacement and pavement repair from winter storm damage	\$210	2020
County	FEMA, County Discretionary	Emergency	Pool Station Rd	Guardrail and pavement repair from winter storm damage	\$46	2020
County	PG&E Settlement	Road	Butte Fire Phase 1A	Overlay of Jesus Maria Rd, Cave City Road, Michel Rd, Old Gulch Rd, Worden R and resurface of Mountain Ranch Rd, S. Railroad Flat Rd, Sheep Ranch Rd		
County	County Discretionary	Maintenance	Various	Annual Striping Program	\$200	2020
County	SB 1	Maintenance	Various	Paving program	\$5,300	2020
County	RSTP, Copper Benefit Basin	Road	O'Byrnes Ferry Road at Duchess Dr.	Widening and restriping for northbound left turn lane	\$884	2019
County	County Discretionary	Road	Six Mile Road - between Vallecito Cal Fire Rad and Vallecito Bluffs Road	Pavement overlay of gravel road	\$550	2020
County	RSTP	Non-Motorized/Road	West Point Bikeway	Road resurface, restriping, install Class III bikeway signage and Share the Road Signs	\$160	2019
County	RSTP	Study	SR 49 Gateway Project - SR 49 corridor in southern San Andreas (St. Charles Street Corridor, Southern Gateway Plan Area and Mountain Ranch Road)	Project Study Report (PSR) - to provide conceptual improvements to address community connectivity and circulation issues in light of future development	\$170	2020
County		Bike	San Andreas, Government Center Dr	Class II bike lane , Mountain Ranch Rd to Government Center Rd	\$7	2020
County		Ped	San Andreas, Government Center Dr	Sidewalk, Government Center Rd to Mountain Ranch Rd	\$50	2020
County		Ped	San Andreas, San Andreas Elementary Path	Class I multi-use pathway , Gold Hunter Rd to E End Existing Path	\$25	2020
County	Copper, Other	Road	O'Byrnes Ferry Rd./Copper Meadows Dr	Construct NBR and SBR	\$107	2020
County	Copper, Other	Road	O'Byrnes Ferry Rd./Poker Flat Rd.	Construct NBL and SBR	\$343	2020
County	Copper, Other	Road	O'Byrnes Ferry Rd/SR 108	Construct traffic signal	\$827	2020
County	VS BB, Other	Road	SR 26 Corridor - Vista Del Lago	Two-way left-turn pocket	\$200	2020
County	County Discretionary	Pedestrian	Valley Springs, Driver Rd/Hwy 26	Sidewalk, Jenny Lind Elementary to Baldwin St	\$751	2020

Source: Calaveras County DPW



Table 16: Calaveras County Completed Capital Improvement Projects 2017-2020

City of Angels

Lead Agency	Funding Source	Project Type	Location	Description	Cost (In 1,000's)	Constr Year
City of Angels Camp						
City	TOT, Gas Tax	Road	Acorn Dr. & Live Oak Dr.	Repair roads.	\$95	2017
City	CMAQ, ATP, RSTP	Road	SR-49 (east side) Stanislaus Ave. and Bragg St. & SR-49 (west side) SR-4 to Stockton Road	Construct sidewalk and bike lane infill.	\$2,847	2021
City	TIM private	Safety/Ped	SR 49 and Stanislaus Ave.	Install signal, four curb ramps, new striping, pavement markings, and signs.	\$167	2020

Source: City of Angels Camp

- **Operational Improvements Alternative**—Increase the capacity of the transportation system, intersection improvements or projects that improve level of service.
- **Complete Streets Emphasis Alternative**—Complete multi-modal and complete streets projects.
- **Safety Emphasis Alternative**—Focus on projects that are primarily designed to increased safety for motorists, goods movement, bicyclists, and pedestrians.

Realistically, the RTP should not follow just one of these alternatives but rather a combination. Therefore, board members were asked to choose which scenario is their top priority. The results were as follows:

- Maintenance Emphasis Alternative—45 percent
- Safety Emphasis Alternative—27 percent
- Operational Improvements Alternative—27 percent

Focusing purely on the Complete Streets Alternative was the lowest priority for Board Members.

Board members were also asked to indicate if they felt it was important to allocate more than 50 percent of funding to one of these scenarios. The results were as follows:

- Maintenance Emphasis Alternative—64 percent
- Would not allocate more than 50 percent to one of these categories—27 percent
- Safety Emphasis Alternative—9 percent

Table 17: Calaveras RTP - County Funded Projects (Short-Term)

Lead Agency	Funding Source	Project Type	Location	Description	Cost (In 1,000's)	Construction Year	Community	Performance Measure
County	HBP, Toll Credits	Bridge	Calaveritas Road over Calaveritas Creek	Historic Bridge Rehabilitation	\$3,320	2022	Calaveritas	TSI
County	HBP, Toll Credits	Bridge	Dogtown Road over French Gulch	Bridge Replacement	\$2,929	2023	Calaveritas	TSI
County	HBP, Toll Credits	Bridge	Dogtown Road over San Domingo Creek	Bridge Replacement	\$3,302	2023	Calaveritas	TSI
County	HBP, Toll Credits	Bridge	Dogtown Road over Indian Creek Bridge	Bridge Replacement (Bridge 30C0050)	\$3,035	2023	Calaveritas	TSI
County	HBP, Toll Credits	Bridge	Dogtown Road over Indian Creek Bridge	Bridge Replacement (Bridge 30C0051)	\$4,313	2023	Calaveritas	TSI
County	STIP, SHOPP, RIM, SB 1 LPP	Road	SR 4 Wagon Trail-Phase 1 Westerly Segment	Construction - Between Bonanza Mine and Appaloosa	\$23,100	2021	Copperopolis	S, MA
County	HBP, Toll Credits	Bridge	Whiskey Slide Road over Jesus Maria Creek	Bridge Replacement	\$4,830	2024	Mountain Ranch	TSI
County	Murphys Lighting District	Other	Downtown Murphys	Install decorative street lighting	\$425	2021	Murphys	ES
County	HBP, Toll Credits	Bridge	Monge Ranch Road over Coyote Creek	Bridge Replacement	\$3,371	2021-2022	Vallecito	TSI
County	HBP, Toll Credits	Bridge	Lime Creek Road at Youngs Creek near SR 26	Bridge Replacement	\$4,752	2021-2022	Valley Springs	TSI
County	HSIP, RSTP	Safety	County	Roadway Safety Signing Audit	\$1,537	2021	Various	S
County	HSIP, RSTP	Safety	County	High Friction Surface Treatment	\$1,479	2022	Various	S
County	HSIP	Safety	Along State Highways in Calaveras County	Roadway Safety and Signing Audit (RSSA) Projects	\$879	2030+	Various	S
County	HBP, Toll Credits	Bridge	Schaad Road at Forest Creek	Bridge Replacement	\$3,435	2021	Wilseyville	TSI
County	FHWA County Discretionary	Road	Railroad Flat Road in Wilseyville	Hillside stabilization after February 2019 Winter Storm	\$1,840	2021	Wilseyville	S
Total					\$62,546			

Lastly, board members were asked to indicate if they felt it was important to allocate less than 10 percent of transportation funding to any one of the scenarios. The results were as follows:

- Would not allocate less than 10 percent to one of these categories—50 percent
- Complete Streets Emphasis Alternative—30 percent
- Operational Improvements Alternative—20 percent

Focusing future transportation funding on maintaining existing transportation facilities is clearly a priority for the CCOG board. The fact that many board members did not wish to heavily weight any one alternative category also shows that the board would like to see a balanced approach to regional transportation planning. This exercise along with the goals ranking discussed in the policy element can provide guidance for decision-makers when funding sources become available to allocate to RTP projects.

Table 18: Calaveras RTP - City of Angels Camp Funded Projects (Short-Term)

Lead Agency	Funding Source	Project Type	Location	Description	Cost (In \$1,000's)	Construction Year	Performance Measure
Funded							
City	CMAQ, RSTP, HIP	Bike/Ped, Road	SR 49@ Murphys Grade Rd	Overlay, sidewalks, intersection improvements from City Limits to Demarest.	\$2,640	2021	E
City	HSIP	Road	Various Locations	Roadway Safety Sign Audit.	\$160	2021	S
City	SHOPP	Bike/Ped	SR 49 in Angels Camp from Copello Rd. and 4/49 Intersection	Multimodal improvements as identified in the Angels Camp N Main Street Plan, including sidewalk and bike lanes, multi-use path, crosswalks, HAWK Beacon, striping, and median island.	SHOPP Portion funded	2025	E, ES
City	SHOPP	Bike/Ped	SR 49 in Angels Camp from SR 4/49 intersection to Utica Park (Community Commercial Main St.)	Multimodal improvements as identified in the Angels Camp Main Street Plan including: contiguous sidewalks and bike lanes with streetscape features and medians as feasible, bus pullouts, bulbouts and enhanced crossings.	SHOPP Portion funded	2025	E, ES
City	CMAQ	Non-motorized	Angels Camp	Angels Trail Phase 1 - Environmental, PE and ROW bike/ped access from Stelte Park and Greenhorn Creek Subdivision to downtown corridor.	\$1,222	2022	E, ES
City	SHOPP	Road/Bike/ Ped	SR 4@ SR 49 & SR 49@ Francis Street	Conversion to Roundabouts, Bridge, Median island, sidewalks, bicycle lanes, multiuse path, retaining wall, crosswalks.	\$19,200	2025	MA
Total					\$23,222		

[Unfunded RTP Projects \(Long-Term and Financially Unconstrained\)](#)—In order to meet transportation needs for the next twenty years, this RTP has a long list of unfunded transportation capital improvement projects, most of which are financially unconstrained. Projects are categorized as high-priority and medium to low priority projects, grouped by community location and presented in Appendix H. The projects address a wide variety of transportation needs discussed in the early chapters of this RTP as well as identified through the public and stakeholder input process. The project lists also incorporate recommendations from recently completed corridor studies and other transportation studies.

[Caltrans State Highway SHOPP Projects \(Table 19\)](#)—The 2020 SHOPP includes several maintenance drainages, slope stabilization bridge upgrades as well as intersection safety improvements totaling \$290 million.

[Aviation Capital Improvement Projects \(Table 20\)](#)—Short-term projects to improve the Calaveras County airport consist of runway and taxiway reconstruction. A long-term project is a remodel of the administration building to comply with ADA requirements. Project costs total \$4.5 million.

[Public Transit Capital Improvement Projects \(Table 21\)](#)—Capital improvements for the Calaveras Transit Agency (CTA) were obtained from the most recent Short-Range Transit Plan and mostly consist of replacing transit vehicles at recommended intervals to maintain a safe and efficient public transit fleet. CTA has one financially unconstrained project: construct an intermodal transit facility. The projects in Table 21 are consistent with the *Calaveras Public Transit and Human Services Transportation Plan (2020)*, particularly Goal 6, which addresses infrastructure needed to support mobility for low income and elderly residents.

Table 19: Calaveras RTP - Caltrans SHOPP Projects

Route	Miles		Location	Proposed Project Description	Estimated Total Cost (1,000's)	Construction Date
	Begin PM	End PM				
Projects in Progress						
4	29	29.4	Murphys at 0.2 mile west of Pennsylvania Gulch Rd and from Penn Gulch Rd to Mitchler ST	Provide two-way left turn lane with unlimited storage	\$2,492	2021
4, 12, 26, 49			Various locations in Calaveras, Tuolumne and Alpine Counties	Repair maintenance structures	\$745	2022
49	7.6	8.7	Angels Camp	Angels Camp Oversight - Construct sidewalks and bike lane	\$1,821	2021
Projects in PA&ED and PS&E Phases						
4	R10.3	16.4	SR 4 from East of Copper to aprox. 6.4 km west of SR 49 intersection in Altaville	Wagon Trail Realignment - Construct 2-lane controlled access expressway on new alignment Combined with STIP	\$67,529	2021
4	16.15		SR 4 at West Branch Cherokee Creek near Angels Camp	Bridge Replacement	\$4,167	2022
4	32.42	37.35	Culvert replacement or installation of cured in place pipe (CIPP) liners in Alpine, Calaveras, and Tuolumne counties, on SR -4, 26, 49, 88, 108. At various locations	CAL 4 Culvert Replacement - Drainage System Restoration	\$3,095	2022
4	35.6 37.4		In Calaveras County at various locations	Maintenance Drainage - Replace Damaged Culvert	\$140	2021
4	R58.0	R65.865	In Calaveras County from 0.6 miles west of Poison Springs road to Alpine County line and in Alpine county from Calaveras County line to 0.2 mile west of Bloods Creek	Maintenance Overlay - 0.15' RHMA OVERLAY	\$3,000	2021
12	10.1	10.3	In Calaveras County in Valley Springs on SR 12 east of SR 12 and SR 26 intersection at SR12 and Valley Oaks shopping center entrance/ exit intersection	Valley Oaks Intersection - Intersection Improvements	\$5,616	2022
12	17.3		In Calaveras County on Sr 12 at North Folk Calaveras Bridge	CAL COUNTY BRIDGES REHAB - Bridge Replacement	\$9,045	2022
26	8.51 8.64 23.60		Various locations in Calaveras	Maintenance Drainage - Replace Culverts	\$190	2022
26	18.1	18.1	Intersection of State Route(SR) 26/ Sr 49 In The Town Of Mokelumne Hill, In Calaveras County	Hwy 26 Intersection Control Improvement - Improve Intersection Control	\$13,313	2022
26	21.4	38.3	In Calaveras County on State Route 26 at 12 locations	Cal 26 Slope Stabilization - Reduce sediment discharges to surface waters to establish consistency with swamp; further flattening of some cut slopes; refilling fill slopes and installation of retaining wall at one location	\$10,706	2023
26	30.00 38.31		In Calaveras County on State Route 4 And State Route 26 at Angels Creek (#30 0008), South Fork Mokelumne River Bridge (#30 0022) and North Fork Mokelumne River Bridge (#30 0049)	Upgrade bridge rails of three bridges in Cal Co -	\$5,742	2022
49	3.58 3.70 5.70		Calaveras County near Angels Camp at various locations from 0.3 mile north of Brunner Hill Road to 0.3 mile south of Ramorini Lane	Maintenance Drainage - Replace Culverts	\$240	2022
49	6.71 9.70 9.71		Calaveras County near Angels Camp at various locations from 0.3 mile north of Brunner Hill Road to 0.3 mile south of Ramorini Lane	Maintenance Drainage - Replace Culverts	\$285	2021
49	7.4	9.5	State Route 49 At Pm 7.4/9.5 In The City Of Angels Camp, Calaveras County	SR 49 Angels Camp Upgrade - Install / upgrade curb ramps, sidewalks, driveways, and accessible pedestrian signal to current Americans with Disabilities Act standards	\$4,864	2021
49	8.5	9.1	Intersection improvements from Cal-49/4 n. Jct intersection to Cal-49/Francis street intersection	Cal 49 Mobility Improvement - Mobility-Operational Improvements	\$12,053	2022
49	18.2	20.2	Complete street improvements along SR 49 in San Andreas	SR 49 Commercial Corridor - Work includes: sidewalk gap closures, ada compliant curb ramps. Designed class 2 bicycle facilities, on-street parking, mid-block crossings with rfrbs and/or traffic calming islands	\$15,073	2022
49	18.7	20.2	State route (SR 49 at pm 18.7/20.2) in the town of San Andreas	SR 49 Curb Ramps - Install/upgrade curb ramps, sidewalk, driveways, to current Americans with Disabilities Act (ada) standards	\$9,359	2022
VAR	VAR	VAR	In Calaveras County at various locations	Maintenance Drainage - Replace Damaged Culvert	\$210	2021
Future Projects						
4	R14.700	16.1	Near Copperopolis and Angels Camp, from Pool Station Rd to west of Appaloosa Way.	Financial contribution to County for Wagon Trail Project - Realign roadway, implement safety features by improving shoulder width and rehabilitate culverts	\$10,325	2021
4	16.1		Near Angels Camp at West Branch Cherokee Creek Bridge No 30-0036	Replace Bridge	\$8,078	2022
26	21.4	38.3	Near Mokelumne Hill and West Point, at various locations from 5.4 miles west of Ridge Rd to the Amador County line.	Stabilize failing and eroded slopes	\$18,939	2022
26	30		Near West Point, at South Fork Mokelumne River Bridge No 30-0022	Upgrade bridge railing at two structures, also seismic retrofit at one location	\$10,103	2022
12	10.1	10.3	Near Valley Springs, from east of Chestnut St. to west of Lime Creek Rd (west)	Intersection Safety Improvements	\$9,525	2024
12	17.3		Near San Andreas, at North Fork Calaveras Creek Bridge No. 30-0007.	Replace Bridge	\$14,250	2024
26	18.1		Near Mokelumne Hill, at the intersection with SR 49	Intersection Improvements	\$18,952	2024
49	7.4	9.5	In Angels Camp, on Main St from north of Brunner Hill Rd to Pine St.	Upgrade to ADA standards, construct new sidewalk and widen shoulders to construct bike lanes as complete streets elements	\$11,480	2024
49	18.7	20.2	Near San Andreas, from south of Toyanza St to north of Pool Station Rd	Upgrade facilities to ADA standards	\$16,640	2024
49			SR 49@SR 4 and SR49@Francis	Operational Improvements for 2 intersections along SR 4 and 49 in the north and NW portions of the City; examine multi-modal and operational improvements.	\$2,445	2025
Total					\$290,422	

Source: 2020 SHOPP



Table 20: Calaveras County Aviation Capital Improvement Projects

Lead Agency	Funding Source	Type	Description	Cost (In 1,000's)	Year
County	AIP	Airport	Runway Pavement Reconstruction (Design)	\$215	2019
County	AIP	Airport	Runway Pavement Reconstruction (Construction)	\$1,983	2020
County	AIP	Airport	Design of Parallel TW & Apron Connectors Pvmnt Reconst.	\$150	2021
County	AIP	Airport	Design of (RW) Taxiway Connectors Pvmnt Reconst.	\$95	2021
County	AIP	Airport	Design of Runway 13 Precision Approach Path Indicator	\$17.5	2021
County	AIP	Airport	Const. of Parallel T/W A & Apron Connectors Pvmnt Reconst.	\$1,345	2022
County	AIP	Airport	Const. of (RW) Taxiway Connectors Pvmnt Reconst.	\$625	2022
County	AIP	Airport	Const. of Runway 13 Precision Approach Path Indicator	\$75	2022
County	AIP	Airport	Remodel administration building to comply with ADA requirements	NA	2030+

Total \$4,506

Source: 2019 California Aeronautics Capital Improvement Program



Table 21: Calaveras Transit Agency (CTA) Capital Improvement Projects

Lead Agency	Funding Source	Type	Description	Cost (In 1,000's)	Year	Performance Measure
CTA	FTA, SGR, LCTOP	Replacement Vehicle	Class C Medium Cutaway ICE	\$105	2021	TSI
CTA	FTA, SGR, LCTOP	Replacement Vehicle	Class B Small Cutaways (2)	\$190	2021	TSI
CTA	FTA, SGR, LCTOP	Other Equipment	Facility Generator	\$30	2021	TSI
CTA	FTA, SGR, LCTOP	Other Equipment	Dispatching Software	\$50	2021	TSI
CTA	FTA, SGR, LCTOP	Other Equipment	Plastic Shields for COVID-19 Safety	\$9	2021	S
CTA	FTA, SGR, LCTOP	Other Equipment	Solar Lighting for Bus Stops	\$11	2021	E
CTA	FTA, SGR, LCTOP	Replacement Vehicle	Class C Medium Cutaway ICE	\$110	2022	TSI
CTA	FTA, SGR, LCTOP	Replacement Vehicle	Class V Modified Van ICE	\$55	2022	TSI
CTA	FTA, SGR, LCTOP	Replacement Vehicle	Class E Large Cutaway ICE	\$202	2023	TSI
CTA	FTA, SGR, LCTOP	Replacement Vehicle	Class V Modified Van ICE	\$57	2023	TSI
CTA	FTA, SGR, LCTOP	Replacement Vehicle	Class V Small Van Electric	\$220	2023	TSI
CTA	FTA, SGR, LCTOP	Other Equipment	Charging Equipment	\$97	2023	E
CTA	FTA, SGR, LCTOP	Other Equipment	Charging Infrastructure	\$50	2023	E
CTA	FTA, SGR, LCTOP	Other Equipment	Bus Stop Improvements	\$50	2023	TSI
CTA	FTA, SGR, LCTOP	Replacement Vehicle	Class E Large Cutaway ICE	\$209	2024	TSI
CTA	FTA, SGR, LCTOP	Other Equipment	Bus Stop Improvements	\$50	2024	TSI
CTA	FTA, SGR, LCTOP	Replacement Vehicle	Class C Medium Cutaway Bus Electric	\$319	2025	TSI
CTA	FTA, SGR, LCTOP	Replacement Vehicle	Class V Modified Van ICE	\$61	2025	TSI
CTA	FTA, SGR, LCTOP	Other Equipment	Charging Equipment	\$104	2025	E
CTA	FTA, SGR, LCTOP	Other Equipment	Bus Stop Improvements	\$50	2025	TSI
CTA	FTA, SGR, LCTOP	Replacement Vehicle	Continued Vehicle Replacement	NA	Long-term	TSI
CTA	FTA, SGR, LCTOP	Other Equipment	Continued Bus Stop and Passenger Amenit	NA	Long-term	TSI
CTA	FTA, STIP		Intermodal Transit Facility	NA	Unconstrained	E
Total				\$2,028		

Note: ICE = Internal Combustion Engine, FTA = Federal Transit Administration, SGR = State of Good Repair, LCTOP = Low Carbon Transit Operations Program

Source: Calaveras Transit Agency Draft Short Range Transit Plan FY 20/21 to FY 24/25



Chapter 7 Financial Element

The Financial Element is fundamental to the development and implementation of the Regional Transportation Plan. This chapter identifies the current and anticipated revenue resources and financing techniques available to fund the planned transportation investments that are described in the Action Element to address the goals, policies and objectives presented in the Policy Element. The intent is to define realistic financing constraints and opportunities. The following provides a summary of the federal, state, and local funding sources and programs available to the Calaveras County region for roadway improvements. The next section examines future regional transportation revenues and compares anticipated transportation revenues with proposed transportation projects. The last section provides a brief summary and conclusions. From a practical perspective, finances and funding availability ultimately determine which projects are constructed.



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

The majority of RTP Action Element projects will be funded by recurring or non-competitive federal or state grants. In addition to recurring money, many competitive grants are available for transportation projects, but success in obtaining these types of funds is difficult to predict. A wide variety of funding sources, which could be employed by Calaveras County to complete the Action Element financially constrained and unconstrained projects, are listed below. For reference, recurring funding sources are marked with an (R), and competitive grant sources are marked with a (C).

ROADWAY IMPROVEMENT FUNDING

Federal Sources

The Coronavirus Aid, Relief, and Economic Security (CARES) Act (2020) and the Coronavirus Response and Consolidated Appropriations Act (2021) provided fast and direct economic assistance for American

workers, families, small businesses, and industries impacted by the COVID 19 pandemic. Transportation was one of these industries. This is a temporary source of revenue available in 2020 and 2021.

Fixing Americas Surface Transportation Act (FAST-Act): Over the years, the federal government has provided guaranteed funding for surface transportation improvements through legislation. The FAST Act is the most recent version and replaces Moving Ahead for Progress (MAP-21) and was signed into law on December 4, 2015. The FAST Act funds surface transportation programs—including, but not limited to, Federal-aid highways—at over \$305 billion for FY 2016 – 20. A one-year extension through 2021 was recently passed. Traditionally, the federal transportation bill has been funded through federal gas taxes. As vehicles have become more efficient, there is less revenue to draw from and an increase in the tax is politically unpopular. FAST Act funds the Transportation Trust Fund authorizes around \$45 billion annually. With the FAST Act extension expiring and a new White House Administration, future levels of funding for these programs are unknown. The following programs are potential funding sources for Calaveras County transportation improvement projects:

- **Surface Transportation Block Grant Program (STBGP) (R)**—Generally, the Surface Transportation Program (STP) provides flexible funding that may be used by States and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. Roughly \$11.6 billion in flexible funding will be available annually nationwide. This program includes a set aside for the **Transportation Alternatives Program** (non-motorized improvements and traffic calming techniques) that funds the California Active Transportation Program and Recreational Trails. Typically, RTPA’s exchange these federal funds for state RSTP funds as described below.
- **National Highway Performance Program (C)**—This core program will focus on repairing and improving the National Highway System. The **Highway Bridge Program (HBP)**, which provides funding for highway bridges in need of repair according to federal safety standards, falls under this core program. State and local bridge replacement projects are funded through Caltrans with HBP grants. The goal of the program is to rehabilitate or replace public highway bridges when it has been determined that the bridge is significantly important and unsafe. The federal share of a HBP project is 80 percent. To be eligible for rehabilitation a bridge must be rated “Structurally Deficient” with a sufficiency rate of less than 80. To be eligible for replacement, the sufficiency rating must be 50 or less. As of 2017, a functionally obsolete bridge is no longer considered eligible for HBP funding.
- **Highway Safety Improvement Program (HSIP) (C)**—This program authorizes roughly \$2.3 million in annual funding for projects with the purpose of achieving a significant reduction in traffic fatalities and serious injuries on all public roads and pedestrian and bicycle facilities. Safety projects include railway-highway crossing and infrastructure safety needs, in addition to safety programs such as education, enforcement, and emergency medical services. California’s Local HSIP focuses on infrastructure projects with nationally recognized crash reduction factors (CRFs). Local HSIP projects must be identified on the basis of crash experience, crash potential, crash

rate, or other data-supported means. Fatality rates on rural roads must be tracked in order to determine allocation to the High-Risk Rural Road Program. Beginning with HSIP Cycle 11 (April 2022), applicants must have developed a Local Roadway Safety Plan (LRSP). An LRSP follows a similar process to the Strategic Highway Safety Plan and provides a framework for organizing stakeholders to identify, analyze, and prioritize roadway safety improvements on local and rural roads.

- **Federal Lands Access Program (FLAP) (C)**—This program replaces and expands the Forest Highways program by providing \$260 million for projects that improve access to all Federal Lands. Funds are distributed to each state by formula based on recreational visitation, land area, public road mileage, and number of public bridges. States must provide a non-federal match.
- **Congestion Management Air Quality (CMAQ)**—This program provides a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas).
- **Tribal Transportation Program**—This program continues the Indian Reservation Roads program and adds set asides for tribal bridge projects and tribal safety projects. It continues to provide set asides for program management and oversight and tribal transportation planning. Roughly \$485 million will be available annually.
- **Nationally Significant Federal Lands and Tribal Projects**—A new discretionary grant for large federal land or tribal land projects.

Rebuilding American Infrastructure with Sustainability and Equity (RAISE): RAISE, formerly known as BUILD and TIGER, is a highly competitive federal Department of Transportation discretionary grant program. Congress has dedicated nearly \$8.9 billion for twelve rounds of National Infrastructure Investments to fund projects that have a significant local or regional impact. Multi-modal and multi-jurisdictional projects are eligible.

Infrastructure for Rebuilding America (INFRA): In FY 2021, \$905 million is available in discretionary grant funding for infrastructure projects that advance the Administration’s priorities of rebuilding America’s infrastructure and creating jobs by funding highway and rail projects of regional and national economic significance.

Secure Rural Schools and Self Determination Act: After the National Forest System was created in 1905, the government established a program to provide revenue sources for rural counties whose tax base was limited by federally protected lands. A portion of Forest Service funds generated through multi-use activities, such as grazing, timber production, and special use permits, are distributed to eligible counties

to help maintain local roads and schools. Payments are divided into three distinct categories, or Titles: Title I for roads and schools, Title II for projects on Federal lands, and Title III for county projects.

In addition, Federal funds are available for transit operations and capital assistance through the Federal Transit Administration, discussed below.

State Sources

Transportation funding in California is both complex and full of uncertainty. Generally, revenue sources for transportation improvements are generated from fuel excise taxes, fuel sales taxes, and the statewide sales tax. In recent years, California transportation funding has become dependent on motor fuel sales tax. Since 2001, proceeds from these taxes have been diverted from the transportation program to address the general fund deficit, despite legislation prohibiting these actions except in the case of severe state fiscal hardship. As a result, the STIP and SHOPP funds (primary funding programs for the state highway system) as well as transit funding sources have been raided for general fund purposes.

The struggle to balance the state budget and adequately fund transportation projects in California is ongoing. Various state legislation and ballot propositions in recent years have changed revenue flows for state transportation sources. The “gas tax swap” eliminated the sales tax on gasoline and implemented the price-based excise tax on gasoline to fund transportation improvements. As part of the legislation, an increase in the diesel fuel sales tax was offset by a decrease in the diesel fuel excise tax. The objective of the gas tax swap was to provide a mechanism to fund transportation bond debt service (gasoline sales tax revenues have more stringent restrictions on uses). At the same time, voters passed Proposition 22, which restricted diversions of fuel excise tax revenues in the State Highway Account for non-transportation purposes. Therefore, new legislation was passed that swapped weight fees previously used for Caltrans operations to be used for bond debt service.

The end result is that STIP roadway projects (State Highway Account) will be funded through fuel excise taxes. STIP Transit and transportation planning projects (Public Transportation Account) and public transit operations are funded primarily through sales tax on diesel fuel. State excise fuel taxes flow through the Motor Vehicle Fuel Account to fund the STIP, SHOPP, Active Transportation Program, and City and County Road Funds. Every year, Caltrans compiles a *Transportation Funding in California* booklet, which includes illustrative charts and tables of all the funding sources discussed below. A link to the 2020 booklet is provided here: <https://dot.ca.gov/programs/transportation-planning/economics-data-management/transportation-economics/transportation-funding-in-ca>.

In 2017, California passed the Road Repair and Accountability Act also known as Senate Bill 1. This legislation provides additional funding for existing transportation programs such as State Transit Assistance (STA) and funding for local streets and roads, while creating new initiatives through the Roadway Maintenance and Rehabilitation Account (RMRA). Effective November 1, 2017, and adjusted for inflation starting 2020, SB 1 increases the excise motor fuel rate by:

- Increasing the gasoline excise tax by an additional \$0.12 per gallon
- Increasing the diesel fuel excise tax by \$0.20 per gallon
- Increasing the sales tax on diesel fuel by 4 percent

In addition to the excise tax increases, SB 1 created a new vehicle registration fee and a Road Improvement Fee for new zero-emission vehicle owners beginning in 2020. SB 1 will provide additional revenue for regional transportation capital improvements (STIP and SHOPP), non-motorized transportation improvements (ATP programs), local roadway projects, bridge maintenance as well as public transit.

The following section lists the transportation funding sources available through the State of California:

- *State Transportation Improvement Program (STIP) (R)*—consists of two broad transportation improvement programs: (1) the regional program funded by 75 percent of new STIP funding and (2) the interregional program funded by 25 percent of new STIP funding. Brief summaries of these funds are provided below along with other state funding sources:
- *Regional Improvement Program (RIP)*—RIP funds account for 75 percent of STIP funding. The 75 percent portion is subdivided by formula into county shares. The CCOG programs funds which are apportioned to the region. These funds may be used to finance projects that are both “on” and “off” the state highway system. This “regional share” must be relied on to fund capacity increasing projects on much of the state highway system. Critical to rural California counties, regional STIP funding may be used for local rehabilitation projects.
- *Interregional Improvement Program (IIP)*—The IIP receives the remaining 25 percent of the STIP funding. The IIP funds taken collectively form the Interregional Transportation Improvement Program (ITIP). This program is controlled and programmed by Caltrans, although regional agencies provide input on the specific ITIP projects for their region. One of the goals of the program is to encourage regional agencies and the state to establish partnerships to conduct certain projects. For the rural California counties, a challenge to use IIP funding is the very limited availability of “local match” for IIP-funded programs. (However, RIP funds can be used as match for the ITIP program.) In actuality, Caltrans receives 15 percent for state highway projects on the interregional system; potential projects must compete statewide for the remaining funds. Much of the state highway system is not eligible for interregional funding and must rely on the regional share to fund capacity improvement projects.
- *Planning Programming and Monitoring Funds*—Programming of these funds comes from county shares and can be programmed for each year of the STIP. The CTC STIP Guidelines define eligible PPM activities as regional transportation planning (including the development and preparation of the regional transportation plan), project planning (including the development of project study reports or major investment studies, conducted by regional agencies or by local agencies in cooperation with regional agencies), program development (including the preparation of RTIPs

and studies supporting them), and monitoring the implementation of STIP projects (including project delivery, timely use of funds, and compliance with State law and the CTC guidelines).

Caltrans estimates the amount of funding available for the STIP program for a five-year period every two years. The most recent STIP Fund Estimate was developed in 2020. Based on that fund estimate and the STIP Guidelines, the CCOG develops a program of projects for the five-year period. The CCOG submits this program of projects called the Regional Transportation Improvement Program (RTIP) to the California Transportation Commission (CTC). The RTIP specifies cost per project component and fiscal year over a five-year period. When the CTC approves the RTIP, it becomes part of the STIP.

- *State Highway Operations and Protection Program (SHOPP) (R)*—The purpose of the SHOPP is to maintain the integrity of the state highway system. Funding for this program is provided through gas tax revenues. Projects are nominated within each Caltrans District office. Proposed projects are sent to Caltrans Headquarters for programming on a competitive basis statewide. Final project funding determinations are subject to the CTC review. Individual districts are not guaranteed a minimum level of funding. SHOPP projects are based on statewide priorities within each program category (i.e., safety, rehabilitation, operations, etc.) within each Caltrans district. SHOPP funds cannot be used for capacity-enhancing projects.
- *SHOPP Minor Programs (R)*—The “Minor A” Program is a Caltrans discretionary funding program based on annual statewide allocations by district. This program allows some level of discretion to Caltrans district offices in funding projects up to \$1,250,000. The “Minor B” Program funds are used for projects up to \$291,000. The advantage of the program is its streamlined funding process and the local district discretion for decision-making. Funding is locally competitive within each district and limited to the extent of its allocation.
- *Regional Surface Transportation Program (RSTP) (R)*—Rural counties can currently exchange federal Surface Transportation dollars for State Highway Account (SHA) funds (a process known as “RSTP Exchange”). This is advantageous to RTPAs as federal funds have more stringent requirements such as a 20 percent local match, while state funds do not require any local match. The state also provides additional state funds to the county, as a match to the exchanged federal dollars. Eligible RSTP projects include:

Construction, reconstruction, rehabilitation, resurfacing, restoration, and operational improvements on Federal Aid Highways (any highways which are not classified as local or rural minor collectors) and bridges (on public roads of all functional classifications):

- Environmental mitigation for an RSTP project
- Capital transit projects
- Carpool projects
- Highway and transit safety projects
- Capital and operating costs for traffic monitoring

- Surface transportation planning programs
 - Transportation enhancement activities
 - Transportation control measures
 - Highway and transit R&D and technology transfer programs
- *Recurring Revenue Source for Local Roadway Projects*—
 - **Fuel Excise Tax Revenues, Highway Users Tax Account**—Roughly 36 percent of the state base excise tax and 44 percent of the price-based fuel excise tax, gas tax swap, (after revenue used to backfill weight fees which have been diverted) are allocated to cities and counties for road projects. Allocation formulas are complex and based on population, proportion of registered vehicles, and proportion of maintained county road miles. These funds can be used for maintenance, new construction, engineering, administration, right of way, and other uses.
 - **Vehicle License Fees**—Revenue from motor vehicle license fees is allocated back to local jurisdictions for any purpose.
 - *Local Partnership Program (C/R)*—This program is funded through a continuous appropriation of \$200 million annually from the Road Maintenance and Rehabilitation Account (SB 1) to local and regional transportation agencies that have sought and received voter approval of taxes or that have imposed fees dedicated solely for transportation improvements.
 - *Environmental Enhancement and Mitigation (EEM) Program (C)*—The purpose of the EEM was to offer state-level funding to remedy environmental impacts of new or improved transportation facilities. Mitigation can include highway landscapes and urban forestry or development of roadside recreational facilities such as roadside rest stops, trails, scenic overlooks, trailheads, parks, and snow parks. The bill appropriates \$7 million annually from the Highway Users Tax Account for these purposes. The program is administered by the California Natural Resources Agency.
 - *The Active Transportation Program (ATP) (C)*—Senate Bill 99, Chapter 359 and Assembly Bill 101, Chapter 354, was signed into law on September 26, 2013. The ATP consolidated existing federal and state transportation programs, including Transportation Alternatives Program, Bicycle Transportation Account (BTA), and State Safe Routes to School (SR2S), into a single program with a focus to make California a national leader in active transportation. Furthermore, disadvantaged communities must receive at least 25 percent of the program’s funding. The purpose of ATP is to encourage increased use of active modes of transportation by achieving the following goals:
 - Increase the proportion of trips accomplished by biking and walking;
 - Increase safety and mobility for non-motorized users;

- Advance the active transportation efforts of regional agencies to achieve greenhouse gas (GHG) reduction goals;
- Enhance public health, including reduction of childhood obesity through programs including, but not limited to, projects eligible for Safe Routes to School Program funding;
- Ensure that disadvantaged communities fully share in the benefits of the program; and
- Provide a broad spectrum of projects to benefit many types of active transportation users.

There is a local match of 11.47 percent except for projects predominately benefiting a disadvantaged community. The program is very competitive but is the primary funding source for bicycle and pedestrian projects.

- *Rural Planning Assistance (RPA) (R)*—This recurring state grant program provides funds to rural RTPAs, on a reimbursement basis, specifically for purposes of transportation planning. Activities and products developed using these funds are governed by an annual Overall Work Program, prepared by the region, and approved by Caltrans.
- *Sustainable Transportation Planning Grant Program (C)*—This grant program was created to support Caltrans’ current Mission: Provide a safe, sustainable, integrated, and efficient transportation system to enhance California’s economy and livability. Overarching objectives of this grant program are to ensure consideration of these major efforts in transportation planning, including sustainability, preservation, mobility, safety, innovation, economy, health, and equity. There are two separate grant programs: Strategic Partnerships and Sustainable Communities, which effectively replace former Environmental Justice, Community-Based Transportation Planning, and Transit Planning grant programs.
- *Strategic Partnerships*—These are funded through the FHWA, for transportation planning studies of interregional and statewide significance in partnership with Caltrans. The minimum grant award is \$100,000 with a maximum award of \$500,000. RTPAs and MPOs are eligible primary applicants with transit agencies, local governments, tribal governments, universities, and non-profit organizations eligible to apply as a sub-applicant. There is a 20 percent minimum local match. Example transportation planning studies include corridor studies, transportation demand management strategies, system investment prioritization plans, and studies which identify interregional or statewide mobility and access needs.
- *Sustainable Communities*—Funded through FTA Section 5304 and the SHA, to study multimodal transportation issues which assist in achieving Caltrans’ mission and overarching objectives. Primary eligible applicants include: RTPAs, MPOs, transit agencies, local governments, and tribal governments. Non-profit organizations and other public entities are eligible to apply as sub-applicants. Grants are available in amounts of \$50,000 to \$500,000, with a local match of 11.47 percent. Example projects include:

- Studies that advance a community's effort to reduce transportation related greenhouse gases;
- Studies that assist transportation agencies in creating sustainable communities;
- Studies that advance a community's effort to address the impacts of climate change and sea level rise;
- Community to school studies or safe routes to school studies or plans;
- Jobs and affordable housing proximity studies;
- Context-sensitive streetscapes or town center plans;
- Complete street plans;
- Bike and pedestrian safety enhancement plans;
- Traffic calming and safety enhancement plans;
- Corridor enhancement studies;
- Health equity transportation studies;
- Climate change adaptation plans for transportation facilities;
- Transit planning surveys and research;
- Identification of policies, strategies, and programs to preserve transit facilities and optimize transit infrastructure;
- Studies that evaluate accessibility and connectivity of the multimodal transportation network;
- Short-range transit development plans;
- Transit marketing plans;
- Social service improvement studies;
- Student Internships (Only for Rural Agencies); and
- Studies that address environmental justice issues in a transportation related context.

- *Trade Corridor Enhancement Program (TCEP) (C)*—The objective of this competitive grant is to provide funding for infrastructure improvements on federally designated Trade Corridors of National and Regional Significance, on California's portion of the National Highway Freight Network, as identified in California Freight Mobility Plan, and along other corridors that have a high volume of freight movement. This program is funded through SB 1 and the federal National Highway Freight Program.
- *Solutions for Congested Corridors (C)*—The purpose of the Solutions for Congested Corridors Program is to provide funding to achieve a balanced set of transportation, environmental, and community access improvements to reduce congestion throughout the state. This statewide, competitive program makes \$250 million available annually through SB 1 for projects that implement specific transportation performance improvements and are part of a comprehensive corridor plan by providing more transportation choices while preserving the character of local communities and creating opportunities for neighborhood enhancement.
- *Urban Greening Grant (D)*—This competitive grant distributed through the California Natural Resources Agency is funded with Greenhouse Gas Reduction Fund (GGRF) revenues. Eligible projects must include one of the following elements:
 - Sequester and store carbon by planting trees;
 - Reduce building energy use by strategically planting trees to shade buildings; and
 - Reduce commute vehicle miles traveled by constructing bicycle paths, bicycle lanes or pedestrian facilities that provide safe routes for travel between residences, workplaces, commercial centers, and schools.

In addition to reducing greenhouse gas emissions, SB 859 requires all projects to achieve measurable benefits. Per statute, all projects must do at least one of the following:

- Acquire, create, enhance, or expand community parks and green spaces, and/or use natural systems or systems that mimic natural systems to achieve multiple benefits.

Priority is given to project in disadvantaged communities. Roughly \$28.5 million was available for the funding cycle in 2020. It is unknown if additional funding cycles will be available in the future.

- *Clean Transportation Program (Alternative and Renewable Fuel and Vehicle Technology Program) (C)*—This program is managed by the California Energy Commission and provides for annual investments of up to \$100 million that promote accelerated development and deployment of advanced transportation and fuel technologies. The program is financed through vehicle and vessel registration, vehicle identification plates, and smog abatement fees. The funds must be used to:

- Expedite development of conveniently-located fueling and charging infrastructure for low- and zero-emission vehicle;
- Accelerate advancement and adoption of alternative fuel and advanced technology vehicles, including low- and zero-emission medium- and heavy-duty vehicles;
- Expand in-state production of alternative, low-carbon renewable fuel from low-carbon pathways; and support manufacturing and workforce training to help meet the needs of the state’s growing clean transportation and fuels market; and
- Support manufacturing and workforce training to translate clean technology investments into sustained employment opportunities.

Clean Transportation Program funds have been used to update existing Electric Vehicle (EV) infrastructure near New Melones Lake and could be used to increase EV charging infrastructure as recommended in the Central Sierra ZEV Plan.

- *Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)*—Administered by CARB this program aims to accelerate the adoption of cleaner, more-efficient trucks and buses by providing fleets based in California with vouchers when they purchase zero-emission buses. For FY 2021 – 21, CARB has allocated \$25 million to HVIP. The amount of the voucher depends on vehicle weight class, type of use and whether or not it is in a disadvantaged community. For a large transit vehicle purchase, a transit agency could receive around a \$150,000 voucher.

The California State Budget for FY 2021 – 21 proposes a \$1.5 billion investment in zero-emission vehicles. This could create additional funding sources for Calaveras Connect to meet CARB’s goal to have a zero-emission bus fleet by 2040. A variety of smaller credit and voucher programs are available through the state to assist with the transition to ZEVs. The Central Sierra ZEV Plan includes a comprehensive list of potential funding programs.

Local Sources

- *County Service Areas*—CSAs are special taxing areas designed to provide revenue for unincorporated portions of the county for services such as water, fire protection, and road maintenance. Calaveras County has five CSA’s. Some of the roadways in the CSA’s are not part of the County Maintained Mileage System and therefore cannot be supported with state and federal funds.
- *Traffic Mitigation Fees*—Traffic mitigation fees are one-time charges on new developments to pay for required public facilities and to mitigate impacts created by or reasonably related to development. There are several approaches to charging developers for the provision of public facilities. In all cases, however, the fees must be clearly related to the costs incurred as a result of the development. Passed to govern the imposition of development fees, AB 1600 requires that a

rational connection be made between a fee and the type of development on which the fee is based. Furthermore, fees cannot be used to correct existing problems or pay for improvements needed for existing development. A county may only levy such fees in the unincorporated area over which it has jurisdiction, while a city must levy fees within the city limits. Any fee program to pay for regional facilities must have the cooperation of all jurisdictions in which future growth is expected to take place.

- *Regional Impact Fee Program (RIM)*—Calaveras County has a RIM in place. Established by Calaveras County in 2004, this program is regional in scope and funds transportation improvements required to serve new development in unincorporated Calaveras County through 2025. These funds are not generally available to fund on-going transportation maintenance and operations costs.
- *Benefit Basin Revenues*—Benefit Basin programs charge developers fees based on the impact of the development on local roads. The fees pay for improvements needed to mitigate additional traffic generated by the project such as roadway widening, turn lanes and signals. Benefit Basin programs exist in San Andreas, Copperopolis, and Valley Springs.

TRANSIT IMPROVEMENT FUNDING

A wide range of potential transit funding sources is available, particularly within California. The following discussion provides an overview of these programs.

Federal Funding Sources

The following are discussions of federal transit funding programs available to rural areas:

- *FTA Capital Program Section 5339 Bus and Bus Facilities Grants (C)*—Capital projects to replace, rehabilitate and purchase buses, vans, and related equipment, and to construct bus-related facilities. A sub-program provides competitive grants for bus and bus facility projects that support low and zero-emission vehicles.
- *FTA Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities (C)*—This program is intended to enhance mobility for seniors and persons with disabilities by providing funds for programs to serve the special needs of transit-dependent populations beyond traditional public transportation services and Americans with Disabilities Act (ADA) complementary paratransit services. (This program consolidates the old New Freedom Program with the Elderly and Disabled Program.) Grants are available for both capital (20 percent local match) and operating purposes (50percent local match) to areas with less than 200,000 in population. Projects to be funded with FTA 5310 funds must be derived from a Coordinated Public Transit Human Services Transportation Plan.

- *FTA Section 5311 Public Transportation for Rural Areas (R)*—Federal transit funding for rural areas (population of less than 50,000) is currently provided through the FTA Section 5311 Non-urbanized Area Formula Program. In California, an 11.47 percent local match is required for capital programs and a 44.67 percent match for operating expenditures. These funds, administered by Caltrans, are segmented into “apportioned” and “discretionary” programs. The bulk of the funds are apportioned directly to rural counties based on population levels. The remaining funds are distributed by Caltrans on a discretionary basis and are typically used for capital purposes. Statewide, around \$31 million is available. A portion of Coronavirus Aid, Relief and Economic Security Act (CARES) funds were directed toward the FTA 5311 program with no local match requirement to supplement transit funding in 2020.
- *Rural Transit Assistance Program (RTAP) (C)*—The RTAP (49 USC. 5311(b)(3)) provides a source of funding to assist in the design and implementation of training and technical assistance projects and other support services tailored to meet the needs of transit operators in non-urbanized areas. RTAP has both state and national program components. The state program provides an annual allocation to each state to develop and implement training and technical assistance programs in conjunction with the state’s administration of the Section 5311 formula assistance program. The national program provides for the development of information and materials for use by local operators and state administering agencies and supports research and technical assistance projects of national interest. There is no federal requirement for a local match.

State Funding Sources

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

- *Local Transportation Fund (R)*—The major portion of TDA funds is provided through the LTF. These funds are generated by a one-fourth cent statewide sales tax and returned to the county of origin. Consequently, LTF funds are based on local population and spending. The LTF may be allocated by CCOG for the following prioritized purposes:
 - A reasonable amount is needed by CCOG for TDA administration. This amount varies between RTPAs.
 - Up to 3 percent of annual LTF revenues may be allocated to the RTPA for the conduct of the transportation planning and programming process.
 - Two percent of the remaining amount may be provided for pedestrian and/or bicycle facilities.

- Up to five percent of remaining funds may be allocated for coordinated community transit services.
- The remaining funds must be spent for transit and paratransit purposes, unless the CCOG finds that either no unmet transit needs, or that unmet needs cannot be reasonably met.
- If there are no reasonable-to-meet unmet transit needs, remaining funds may be allocated to local streets and roads to jurisdictions based on population.
- *State Transit Assistance*—In addition to LTF funding, the TDA includes a STA funding mechanism. The sales tax on diesel fuel is used to fund public transit operations and capital improvements. This amount was recently augmented by the diesel fuel sales tax increase from SB1.
- *State of Good Repair (SGR)*—The RRMA (SB 1) includes a program that provides additional revenues for transit infrastructure repair and service improvements. This investment in public transit will be referred to as the State of Good Repair (SGR) Program. This program receives funding of approximately \$105 million annually. SGR funds are to be made available for eligible transit maintenance, rehabilitation, and capital projects.
- *The Low Carbon Transit Operations Program (LCTOP)*—This is one of several programs that are part of the Transit, Affordable Housing, and Sustainable Communities Program established by the California Legislature in 2014 by Senate Bill 862. The LCTOP was created to provide operating and capital assistance for transit agencies to reduce greenhouse gas emission and improve mobility, with a priority on serving disadvantaged communities. Eligible projects include new or expanded bus or rail services, expanded intermodal transit facilities, and may include equipment acquisition, fueling, maintenance and other costs to operate those services or facilities, as long as each project reduces greenhouse gas emissions. For agencies, whose service area includes disadvantaged communities, at least 50 percent of the total moneys received shall be expended on projects that will benefit disadvantaged communities. This relatively new program is administered by Caltrans in coordination with Air Resource Board (ARB) and the State Controller’s Office (SCO). Transit agencies often use LCTOP funds to pay for revenue loss when offering free fares to passengers. Calaveras Transit Agency is currently doing this.
- *Transit and Intercity Rail Capital Program (C)*—Also created by SB 862, this program provides funding from the Greenhouse Gas Reduction Fund, for rail or intercity rail feeder bus projects which reducing greenhouse gas emissions. Eligible applicants must be public agencies, including joint powers agencies, that operate or have planning responsibility for existing or planned regularly scheduled intercity or commuter passenger rail service (and associated feeder bus service to intercity rail services), urban rail transit service, or bus or ferry transit service (including commuter bus services and vanpool services).

Local Transit Operating Funding Sources

In addition to the above programs, Calaveras Transit Agency collects passenger fare revenue on board the buses, receives revenue through advertisements placed on the buses, and has funding agreements with local organizations such as Columbia College. These revenue sources are generally used to pay for annual operating and maintenance expenses.

AVIATION

Funding Sources

- *Federal Airport Improvement Program (AIP)*—The AIP provides 90 percent federal funding (requiring a 10 percent local and state match) for public use airports that are part of the National Plan of Integrated Airport Systems (NPIAS). Available for most capital expenditures, this funding program must be approved annually by Congress. In recent years it has experienced major funding reductions. However, CARES Act Funding was used to supplement the AIP program allowing for no local match requirement. AIP funds are derived from user charges such as aviation fuel tax, civil aircraft tax, and air passenger fare surcharges. The Maury Rasmussen Field is currently listed on the NPIAS system and therefore eligible for AIP funds.
- *State of California Airport Grants*—The California Division of Aeronautics makes grant funds available for airport development and operations. Three types of state financial aid to publicly owned airports are available.
- *Annual grants for up to \$10,000 per airport per year*—These funds can be used for a variety of purposes from runway reconstruction, obstruction removal, to radios.
- *Acquisition and Development (A&D) Grants*—These grants provide funds for the cost of qualified airport developments on a matching basis, to the extent that state funds are available. Grant amounts can range from a minimum of \$20,000 to a maximum of \$500,000. The local match requirement is set annually by the CTC and can vary from 10 to 50 percent of total project costs. A&D grants cannot be used as a local match for FAA grants. A&D projects must be listed in the CIP and A&D grants are available to both NPIAS and non NPIAS airports. The amount available for A&D grants is what is left in the Aeronautics Account after funding State Operations, Annual Grants and AIP Matching.
- *Local Airport Loan Program*—This program provides discretionary low-interest State loans to eligible airports for projects that enhance an airport’s ability to provide general aviation services (hangars, terminals, utilities, fueling facilities, A&D-eligible projects, etc.). A loan may also provide the local share for an AIP grant. Such a loan can be used in conjunction with a State-funded AIP Matching grant. The maximum term of a loan is 17 years.

Funding for airport improvements is limited. At the state level excise taxes on AVGAS and General Aviation jet fuel are the only source of revenue for the Division of Aeronautics. AIP Grant funding has increased by only four percent over the past five years.

PROJECTED REVENUES

Projecting revenues and expenditures over a 20-year horizon is difficult, in that funding levels can dramatically fluctuate or be eliminated by legislation and policy changes. In addition, many projects are eligible for discretionary funds, which are nearly impossible to forecast as discretionary funds are allocated through a competitive grant process.

Recurring regional transportation revenues were projected over the next 20 years, as shown in Table 22. As referenced in the RTP Guidelines and required in Government Code Section 65080(b)(4)(A), STIP revenues projections over the first four years of the planning period are consistent with the 2020 STIP Fund Estimate. Although the base excise tax on motor fuel has remained the same over the past 20 years or so, vehicles have become more fuel efficient. Adding inflation into the equation, fuel tax revenues have been slowly decreasing over time. Therefore, transportation funding sources which are dependent on fuel tax revenues such as STIP and SHOPP are only projected to increase by two percent annually over the long-term planning period. On a federal level, this RTP assumes conservatively that the FAST Act will be authorized at apportionment levels similar to previous years.

Around 1 billion in recurring transportation revenue is anticipated to be available over the 20-year planning period for roadway and bridge capital improvement projects. Transportation Operations and Maintenance funding is anticipated to total to \$166 million over the planning period. Local transportation capital improvement revenue sources such as the Benefit Basin programs may reach \$7.8 million. Recurring funding sources for bicycle and pedestrian projects are very limited. It is estimated that highly competitive ATP grant funds in the amount of 4.3 million can be obtained every five years. Combined with a small amount of LTF available, this equates to \$2.2 million over the next 20 years. Aviation capital revenues over the planning period total to approximately \$20 million. Roughly \$43 million in total transit capital and operating revenue is projected.

Roadway and Bridge Revenue to Expenditure Comparison

Table 23 compares regional transportation capital improvement projected recurring revenues to expenditures over the 20-year planning period. As can be seen in the table, the first five years of RTP projects are fiscally constrained. However, for the mid-term and long-term periods, there is a significant shortfall in recurring revenues, roughly \$52 million in regional roadway projects. Additionally, this figure does not include long-term projects with unknown project costs. Specific implementation dates for projects will depend on actual revenue available.

TABLE 22: RTP Forecast Revenue Summary

All Figures in 1000s, adjusted annually for inflation

Funding Source/Program	Short-Term	Mid-Term	Long-Term	Total 20 Years
	FY 2021-22 to FY 2025-26	FY 2026-27 to FY 2030-31	FY 2031-32 to 2040-41	
Roadway and Bridge Capital Revenues				
<u>Recurring</u>				
State Transportation Improvement Program (STIP) ⁽¹⁾	\$4,427	\$1,442	\$3,351	\$9,220
SHOPP/Minor/Highway Maintenance ⁽²⁾	\$290,422	\$222,893	\$497,885	\$1,011,199
RSTP ⁽³⁾	\$1,061	\$1,087	\$2,258	\$4,406
CMAQ ⁽⁴⁾	\$2,075	\$2,075	\$4,150	\$8,300
<i>Subtotal</i>	\$297,984	\$227,497	\$507,643	\$1,033,124
<u>Competitive</u>				
Highway Bridge Program (HBP) ⁽⁵⁾	\$33,286	\$750	\$1,000	\$35,036
Highway Safety Improvement Program (HSIP) ⁽⁵⁾	\$3,016	\$3,139	\$7,293	\$13,449
<i>Subtotal</i>	\$36,302	\$3,889	\$8,293	\$48,485
Transportation Operations and Maintenance Revenues⁽¹⁰⁾				
Highway Users Tax (Gas) (County)	\$17,368	\$19,175	\$44,546	\$81,088
Highway Users Tax (Gas) (City)	\$546	\$586	\$1,301	\$2,433
Road Fund Exchange (County direct apportionment from state)	\$1,280	\$1,280	\$2,560	\$5,120
Road Maintenance and Rehabilitation (SB 1)(County)	\$14,500	\$15,396	\$38,540	\$68,437
Road Maintenance and Rehabilitation (SB 1)(City)	\$361	\$418	\$1,047	\$1,827
County Service Area (CSA) funding	\$1,965	\$1,965	\$3,930	\$7,860
<i>Subtotal</i>	\$36,020	\$38,821	\$91,924	\$166,765
Local Capital Improvement Sources⁽⁸⁾				
RIM Fee Program	\$1,355	\$1,355	\$2,168	\$4,878
Valley Springs Benefit Basin	\$713	\$713	\$1,140	\$2,565
Copperopolis Benefit Basin	\$83	\$83	\$132	\$297
Bret Harte Benefit Basin	\$33	\$33	\$52	\$117
<i>Subtotal</i>	\$2,183	\$2,183	\$3,492	\$7,857
Bicycle and Pedestrian Revenues				
Active Transportation Program ⁽⁹⁾	\$1,000	\$1,000	\$2,000	\$4,000
2% of Local Transportation Funds (LTF) ⁽⁵⁾	\$83	\$92	\$214	\$389
<i>Subtotal</i>	\$1,083	\$1,092	\$2,214	\$4,389
Aviation Capital Revenues				
Federal Airport Improvement Program (AIP) ⁽⁵⁾	\$4,506	\$4,689	\$10,894	\$20,089
State CAAP ⁽⁶⁾	\$50	\$50	\$100	\$200
<i>Subtotal</i>	\$4,556	\$4,739	\$10,994	\$20,289
Transit Capital and Operating Recurring Revenues				
Transportation Development Act (TDA) State Transit Assistance (STA)	\$1,233	\$1,362	\$3,163	\$5,758
State of Good Repair ⁽⁵⁾	\$358	\$395	\$918	\$1,671
TDA Local Transportation Funds (LTF) ^(5,7)	\$5,837	\$6,444	\$14,970	\$27,251
FTA Sec. 5311 ⁽⁵⁾	\$1,431	\$1,580	\$3,671	\$6,682
Low Carbon Transit Operations Program (LCTOP) ⁽⁵⁾	\$444	\$490	\$1,138	\$2,072
<i>Subtotal</i>	\$9,303	\$10,271	\$23,860	\$43,434
TOTAL	\$387,430	\$288,492	\$648,420	\$1,324,343

Note 1: Based on Calaveras 2020 RTIP and CTC 2020 STIP Fund Estimate. A 2.0 percent growth rate is assumed from FY 25/26 forward.

Note 2: FY 2021-2025 based on Caltrans Calaveras County SHOPP projects. May be grouped with projects in adjacent counties. FY 26/27 forward based on average anticipated funding from previous 10 years with the exception of Wagon Trail and increased by 2.0 percent annually.

Note 3: Based on historical allocations and increased by 0.05 percent annually.

Note 4: Based on state forecasts

Note 5: Competitive revenue source. Based on funded projects and future project lists.

Note 6: Assumed annual CAAP grant of \$10K per year.

Note 7: Represents total apportionment for region for all purposes

Note 8: Based on FY 2018-19 fees collected. This amount is assumed to be collected every two years until 2035 then every three years.

Note 9: ATP grant funding is very competitive and difficult to project. Assumed \$1,000,000 in grant funding every 5 years.

Note 10: Based on historical allocations and state forecasts



Table 23: Calaveras RTP Transportation Revenue to Cost Comparison by Mode

Figures in \$1,000's

Mode	Funding Source	Projected Revenue		Projected Costs		(Shortfall)/Surplus	
		Short-Range (5 years)	Long-Range (6-20 years)	Short-Range (5 years)	Long-Range (6-20 years)	Short-Range (5 years)	Long-Range (6-20 years)
Roadway State	SHOPP	\$290,422	\$720,777	\$290,422	NA	\$0	--
Regional Roadway	STIP, RSTP, CMAQ, HSIP	\$9,433	\$24,796	\$9,433	\$77,313	\$0	(\$52,517)
Bridge	HBP	\$33,286	\$1,750	\$33,286	\$1,956	\$0	(\$206)
Roadway Maintenance - County	HUTA, SB-1	\$35,113	\$127,393	\$110,000	\$110,000	(\$74,887)	(\$57,495)
Roadway Maintenance - City	HUTA, SB-1	\$907	\$3,352	\$2,750	\$5,500	(\$1,843)	(\$3,990)
Complete Streets, Multi-Modal, Bicycle and Pedestrian	ATP, LTF	\$1,000	\$3,000	\$1,000	\$47,062	\$0	(\$44,062)
Benefit Basin/RIM Projects	Benefit Basin and RIM Fees	UNK	UNK	\$555	\$266,221	(\$555)	(\$266,221)
Transit		\$2,028	NA	\$2,028	NA	\$0	--
Aviation		\$4,556	\$15,733	\$4,506	NA	\$50	--

CCOG applies for competitive grant funding when applicable which may add to the revenue sources. Table 23 clearly demonstrates that obtaining funding through discretionary grants will be key to implementing all the regional transportation capital improvement projects required to meet the needs identified in this RTP. The Calaveras County region will continue to plan and program transportation projects that are consistent with the goals, policies, and objectives in the Policy Element.

Operations and Maintenance Costs

In addition to ensuring that the implementation of new or reconstructed transportation facilities identified in this RTP are financially constrained, it is also important to consider if there will be sufficient funds over the planning period to operate and maintain the facilities once constructed. Funds for roadway operation and maintenance stem from a variety of sources depending on the operator of the facility. SHOPP funds can be used to maintain the state highways. Gas tax funds are used to maintain roadways at the county and city level. Table 23 shows projections for transportation planning, operations, and maintenance. These revenue projections are based on historical funding levels. Maintenance cost estimates were obtained from the County and City Pavement Management Plans. As indicated, there is a significant deficit in roadway maintenance funding over both the short and long-term, if roadways are to be maintained at levels recommended in the Pavement Management Plans.

Transit Revenue Expenditure Comparison

In terms of transit capital projects, generally FTA 5339 funds are used to replace transit vehicles. A 20 percent local match is required. Although FTA 5339 funds are competitive, transit agencies are generally

able to obtain grants for vehicle replacement. TDA funds can be used as the local match. Over the long-term, transit agencies in California will need to construct the infrastructure to have zero-emission fleets. The proposed state budget has potential funding sources available to assist with fleet electrification. Calaveras Transit Agency is currently planning for this effort.

Aviation Revenue Expenditure Comparison

AIP grants are assumed for airport improvement projects and therefore, assumed to be financially constrained.

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