

Calaveras Transit Intercity Service Feasibility Study

Final



Prepared for

Calaveras Council of Governments

Prepared by

LSC Transportation Consultants, Inc.



Calaveras Transit Intercity Service Feasibility Study

Final

Prepared for the:

Calaveras Council of Governments
891 Mountain Ranch Road
San Andreas, CA 95249
209 ♦ 754-2094

Prepared by:

LSC Transportation Consultants, Inc.
2690 Lake Forest Road, Suite C
P.O. Box 5875
Tahoe City, California
530 ♦ 583-4053



May 5, 2014

TABLE OF CONTENTS

Chapter	Page
1 Introduction	1
2 Existing Transit Service	3
Study Area	3
Existing Transit Service Providers.....	3
3 Intercity Transit Demand	21
Population Characteristics.....	21
Commute Patterns	23
Unmet Transit Need.....	26
Human Service Agency Demand	27
College Student Demand.....	30
Peer Intercity Transit Demand.....	32
TCRP Demand Estimation Techniques	33
Calaveras County Travel Demand Transcad Model	34
Community Phone Survey	36
Survey Findings	36
Summary of Demand for Calaveras Intercity Transit Services	49
4 Intercity Service Alternatives	51
Funding.....	51
Stockton.....	54
Lodi Intercity Service – FTA 5311(f).....	61
Improve Connections to Jackson, Sutter Hill, and Sacramento	63
Direct Service to Sonora – NON FTA 5311(f)	65
Intercity Connections in Modesto	65
Joint Intercity Service with Tuolumne County Transit – FTA 5311(f).....	66
Service Alternative Performance Analysis.....	69
5 Intercity Service Plan Recommendations	73
Service Plan.....	73
Capital Plan	78
Financial Plan	79
Implementation Plan.....	81

APPENDIX A—Public Workshops

APPENDIX B—Calaveras Phone Survey

APPENDIX C—Calaveras Transit Riders Survey

LIST OF TABLES

Table	Page
1 Calaveras Transit Historical Operating Statistics	7
2 Calaveras Transit Ridership by Month	8
3 Calaveras Transit Revenues	8
4 Calaveras Transit Fiscal Year 2012-2013 Operating Expenses and Allocation	9
5 Calaveras Transit Operating Data and Performance Indicators	11
6 Calaveras County Population Characteristics.....	22
7 Calaveras County Commute Patterns--2011	23
8 Potential Intercity Transit Demand from Human Resource Agencies	31
9 Peer Intercity Transit Services Ridership Demand	32
10 Calaveras County Daily Vehicle Trips Origin/Destination.....	35
11 Community Survey Background Questions	37
12 Community Survey Response Trip Patterns —Where Do You Go For Doctors Appointments	43
13 Community Response Trip Patterns —Where Do You Go For Food Shopping?	43
14 Community Response Trip Patterns —Where Do You Go For Other Shopping?	44
15 Community Response Trip Patterns —Where Do You Go For Banking?	44
16 How Many Times a Week Do You Travel to the Following Locations?.....	45
17 What Day of the Week Do You Travel to the Following Locations	45
18 What Time of Day Do You Travel To the Following Locations	45
19 Trip Purpose For the Following Locations	46
20 How Many Stops Do You Make in The Following Locations?	47
21 Do You Ever Stay Overnight at the Following Locations	47
22 Would You Ride Public Transit To?	48
23 What Has Prevented You or Your Household from Using Transit Service?	48
24 Calaveras Transit Intercity Service Alternatives	53
25 Existing Stockton Intercity Service Times	55
26 Stockton Intercity Schedule Alternatives	57
27 Existing Lodi Intercity Service Times.....	62
28 Existing Modesto Intercity Service Times	67
29 Service Alternatives Performance Analysis.....	69
30 Calaveras Transit Plan Elements.....	74
31 Recommended Stockton Intercity Service Schedule	74
32 Calaveras Intercity Service Financial Plan.....	80

LIST OF FIGURES

Figure	Page
1 Calaveras Intercity Transit Study Site and Location Map	4
2 Calaveras Transit Bus Routes	5
3 Calaveras Transit FY 2012-13 Ridership by Month	7
4 Calaveras County Intercity Transit Activity Center	18
5 Where Calaveras County Residents Work.....	24
6 Where Calaveras County Workers Live.....	25
7 Where Do You Go For Doctor Appointments?	38
8 Where Do You Go For Banking?	38
9 Where Do You Go For Food Shopping?	39
10 Where Do You Go For Other Shopping?	39
11 Where Do You Go to the Airport?	39
12 Where Do You Access Amtrak?	40
13 Where Do You Access Greyhound?	40
14 Where Calaveras County Residents Go For Shopping, Medical Appointments Banking and Intercity Transportation.....	42
15 Calaveras Intercity Transit Service Alternatives	52
16 Passenger Trips per Vehicle-Hour of Service	71
17 Subsidy per Passenger Trip.....	72
18 Calaveras Transit Existing Services with Proposed Stockton Intercity Route	76
19 Stockton Intercity Loop.....	77

As a largely rural county stretching from the San Joaquin Valley to the High Sierra, there is a substantial need for intercity public transit to serve Calaveras County residents. In particular, many residents need to access larger urban areas for medical purposes and to connect with the nation's passenger air, intercity bus, and intercity rail networks. In addition, there is a substantial level of commuting both into and out of the county. At present, the only intercity public transit option is a difficult connection via the Amador Regional Transit System (ARTS) through Jackson to Sacramento. While service to Lodi has historically been provided, reductions in funding due to the recent recession necessitated elimination of service.

The primary purpose of this study is to address long standing intercity transit needs for Calaveras County residents, as long as an efficient and productive service can be developed which meets TDA farebox ratio requirements. Ideally, the new route(s) would provide meaningful connections to Greyhound and Amtrak, meet out-of-county medical needs for human service agency clients, and effectively serve commuters and students.

The Federal Transit Administration (FTA) 5311 rural transit funding program includes a set-aside of 15 percent to address the intercity travel needs of rural area residents to urbanized areas. The objective of the program is to provide transit connections between rural areas and the national intercity bus network and other regional modes of transportation such as air or rail.

This study presents and reviews the setting for transportation, including demographic factors, as well as the recent operating history of Calaveras Transit services. The document also contains the results of a community-wide telephone and on-line survey. The findings of these analyses were used to guide the development of the intercity service alternatives. Ultimately, the document presents a recommended service plan, financial plan and capital needs for the plan along with an implementation schedule.

Public input was an important part of the study. Public workshops were conducted in two parts of the county prior to and after the formulation of intercity transit service alternatives. Notices and project descriptions were posted in three different local newspapers including the Calaveras Enterprise, Valley Springs News and the Local Scoop. The Calaveras Council of Governments also prepared a press release regarding the project. The Draft Plan was available for comment to the general public for roughly one month as well as discussed at both a Calaveras Council of Governments and Calaveras County Board of Supervisors meeting. Notes and advertising materials for the public workshops and the on-line survey are presented in Appendix A.

This page left intentionally blank.

STUDY AREA

Calaveras County is located within the foothills of the Sierra Nevada mountain range, approximately 133 miles east of San Francisco and 85 miles southeast of Sacramento. The County 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 (see Figure 1). Although the county seat is located in San Andreas, the only incorporated city in the county is the City of Angels, also known as Angels Camp. Calaveras County is served by four state highways: State Route (SR) 4 provides an east-west route from San Joaquin County to the High Sierra and Bear Valley ski resort; SR 49 is the major north-south route linking the communities of Mokelumne Hill, San Andreas, and Angels Camp to Amador and Tuolumne Counties; SR 26 traverses the northwest corner of Calaveras County between the San Joaquin County line near Rancho Calaveras and the Amador County line near West Point; and SR 12 travels through the western portion of the County and serves as a connector to San Joaquin County, Wallace, Burson, Valley Springs, and San Andreas.

Located in the heart of gold country, Calaveras County is a desirable place to live. However, both the geographical location and rural nature of Calaveras County add to the need for intercity transit services in the region. Communities such as Rancho Calaveras and Valley Springs are within commuting distance of Stockton and Lodi in San Joaquin County. Certain commercial or medical facilities or a community college campus is lacking in Calaveras Country, requiring county residents to travel outside of the county for these purposes.

EXISTING TRANSIT SERVICE PROVIDERS

A variety of public, private and non-profit transportation services are available to Calaveras County residents.

Public Transit Services – Calaveras Transit

Calaveras Transit is a service of Calaveras County Department of Public Works. Services are run through a contractor, which operates five fixed-routes generally between 5:30 AM and 8:00 PM Monday through Friday (with no service on weekends or holidays). Deviations are available to Americans with Disabilities Act (ADA) eligible passengers within three-quarter mile of the routes. Calaveras Transit routes are described below and illustrated in Figure 2.

Route 1: This route provides nine round trips between San Andreas and Valley Springs between the hours of 6:00 AM and 8:00 PM. The route travels as far west as Rancho Calaveras on SR 26 in Valley Springs and as far southeast as the SR 49/Demarest Transfer Point in Angels Camp. Route 1 includes two stops at the ARC. Transfers to Routes 4 and 5 are possible in Angels Camp. As this route serves Valley Springs in the western portion of the county, it has potential to be expanded to create intercity transit service.

Route 2: This route connects San Andreas to the small community of West Point in the northeastern portion of the county. It also serves the communities of Mountain Ranch, Railroad

**Figure 1
Calaveras Intercity Transit Study Site and Location Map**

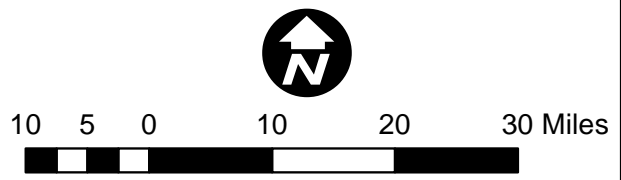
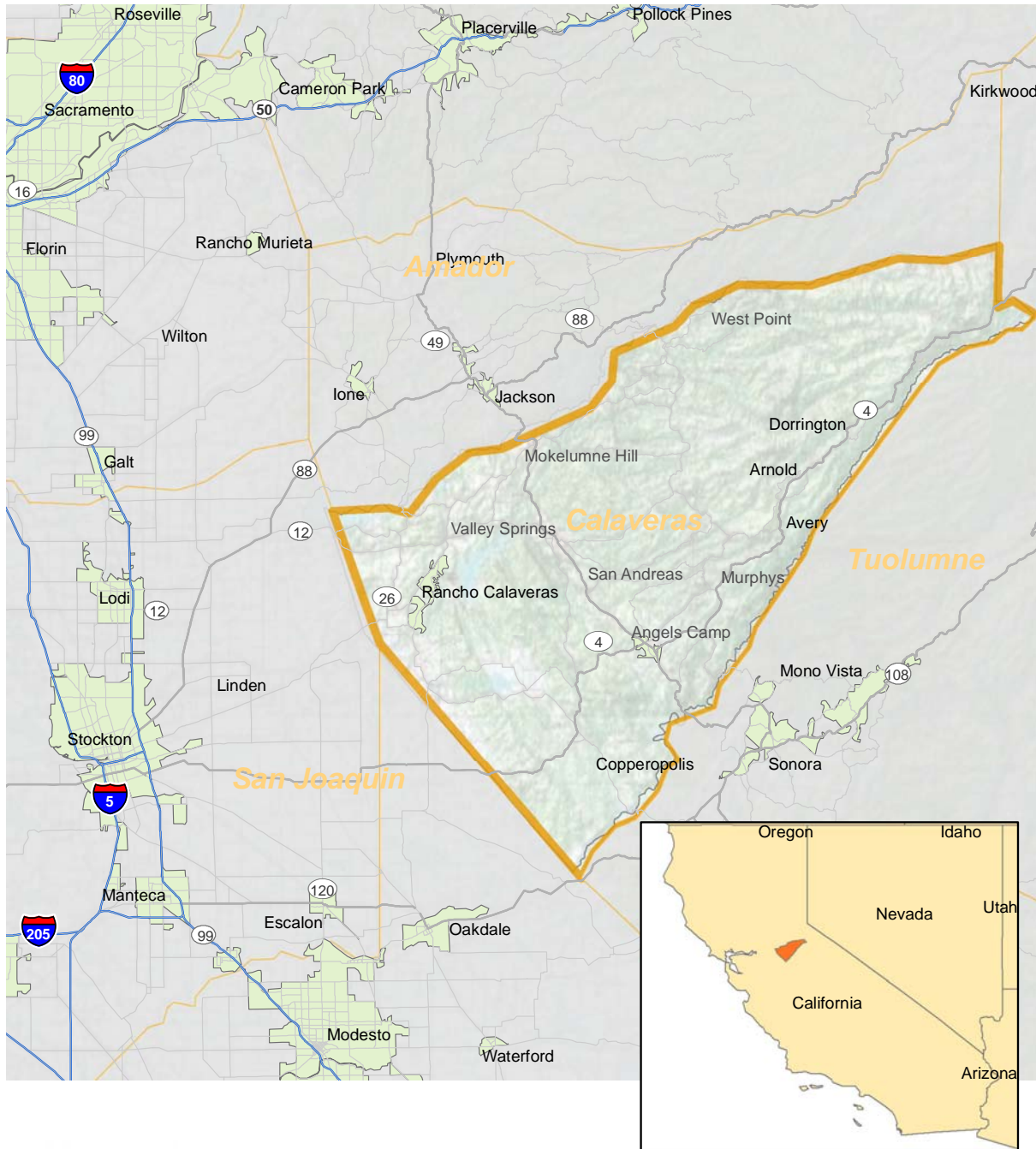
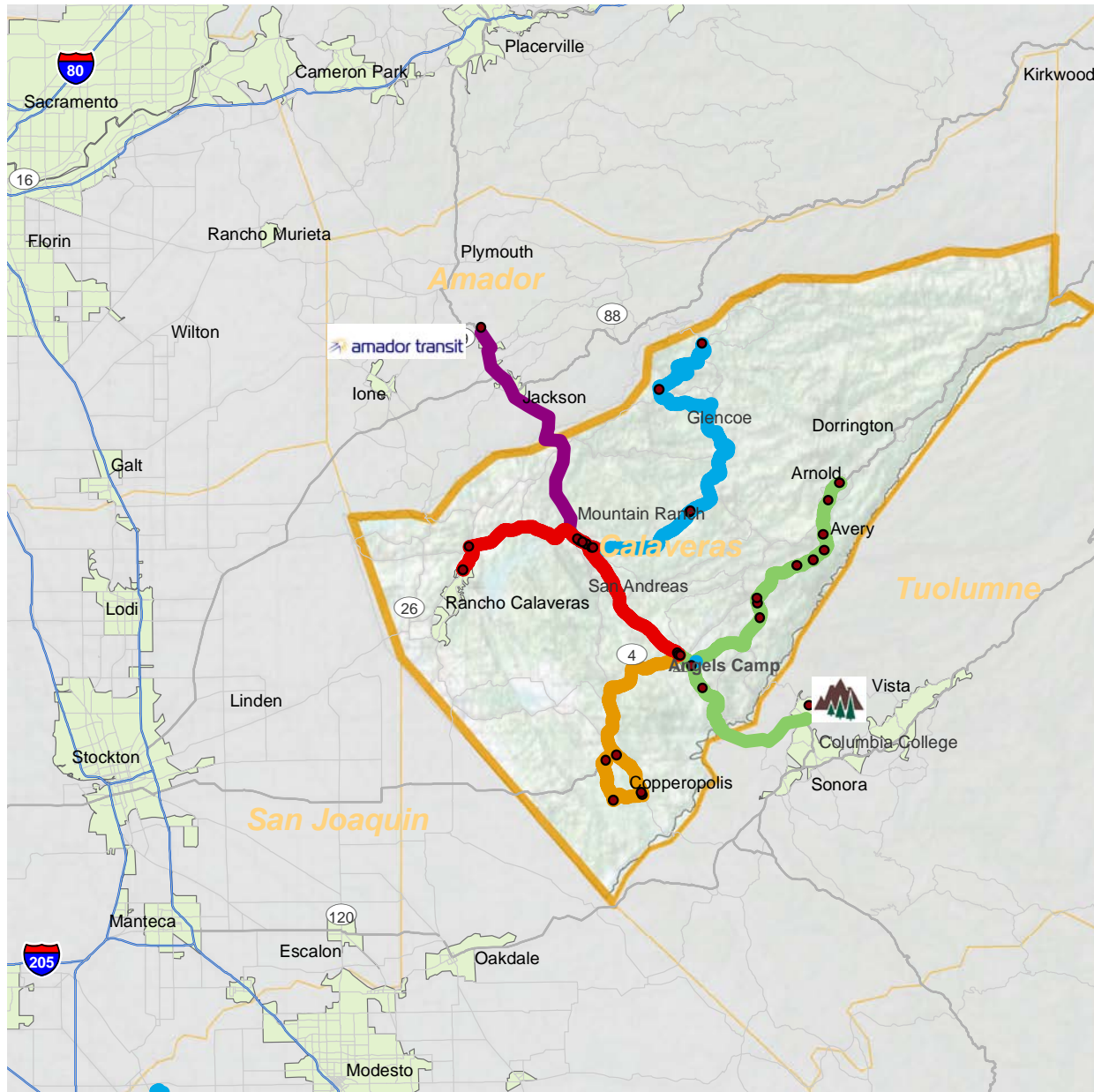


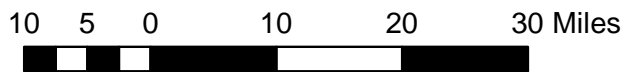
Figure 2 Calaveras Transit Bus Routes



● Calaveras Transit Bus Stops

Calaveras Bus Routes

- Valley Springs
- West Point
- Copperopolis
- Arnold/Columbia College
- Jackson
- Urban Areas



Flat and Glencoe. Route 2 is a limited service as it makes only one early morning and one evening round trip. Although West Point is geographically close to Amador County, it is not close to the economic center of Amador County.

Route 3: This route makes an existing intercity connection between San Andreas and Jackson in Amador County.

Existing Intercity Connection: Calaveras Transit connects to Amador Transit at the Raley's in Jackson. From Raley's, passengers can connect with Amador Transit's Jackson-Sutter Creek shuttle. Unfortunately, current time schedules do not allow Calaveras County residents to commute to Sacramento via public transit from Calaveras County.

Route 4: This route travels along SR 4 between Arnold and the SR 49/Demarest transfer point in Angels Camp and continues beyond Angels Camp via SR 49 to Columbia College in Tuolumne County.

Existing Intercity Connection: At Columbia College, Calaveras Transit passengers may transfer to Tuolumne County Transit (TCT) to Sonora.

Route 5: This route makes two round-trips a day between Angels Camp and Copperopolis in the southwestern portion of the county. It potentially could be extended to serve Stockton.

Calaveras Transit Operating Statistics

Historical Service Levels and Ridership

Table 1 presents data regarding annual ridership, vehicle service hours, and vehicle service miles for Calaveras Transit services from FY 2010-11 to FY 2012-13. Over the three year period, ridership increased by 9.7 percent while service levels (hours and miles) remained relatively constant. In September of 2012, Calaveras Transit made schedule and route adjustments which appear to have been successful. These included serving Jackson in Amador County directly, instead of transferring with Amador Transit in Mokelumne Hill. Specifically, prior to September, Route 3 travelled between Angels Camp and Copperopolis. The Copperopolis Route is now Route 5 and Route 3 travels between San Andreas and Jackson. Previously, the West Point Route 2 served Mokelumne Hill.

Ridership by Month

Figure 3 and Table 2 present FY 2012-13 ridership by month for each route. The Valley Springs / Angels Camp Route 1 and the Arnold Columbia College Route 4 have the greatest ridership. Seasonally, these routes have the highest ridership during the spring and fall months, likely due to college students. Ridership on the other routes is relatively steady throughout the year with less than 500 one-way passenger trips each month. The spike in ridership for July and August of 2012 for the West Point Route is a result of serving Mokelumne Hill.

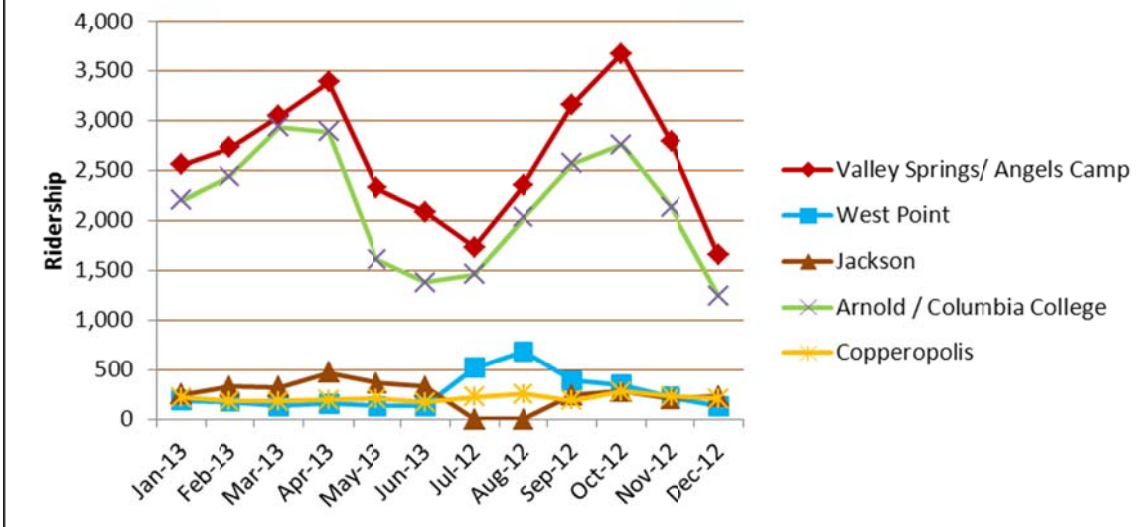
Table 1: Calaveras Transit Historical Operating Statistics

FY 2010-11 through FY 2012-13

	Annual Values			Total Change	Average Annual Change
	FY 2010 - 11	FY 2011-12	FY 2012-13		
Ridership	60,080	68,094	65,922	9.7%	4.9%
Vehicle Service Hours	8,807	8,930	8,738	-0.8%	-0.4%
Vehicle Service Miles	263,345	259,305	263,174	-0.1%	0.0%

Source: Calaveras Transit

Figure 3: Calaveras Transit FY 2012-13 Ridership by Month



Calaveras Transit Financial Analysis

Revenues

Table 3 presents actual Calaveras Transit operating and capital revenues by source for Fiscal Year 2012-13. As indicated in the table, the majority of operating funding in Fiscal Year 2012-13 was Transportation Development Act (TDA) funds (76.4 percent), followed by Federal Funds (14.7 percent). Passenger fares accounted for 7.8 percent of operating revenue.

Table 2: Calaveras Transit Ridership by Month

FY 2012-13

	Route					Total
	1 Valley Springs/ Angels Camp	2 West Point	3 Jackson	4 Columbia College	3/5 Copperopolis	
Jan-13	2,558	186	252	2,203	219	5,418
Feb-13	2,728	174	328	2,441	179	5,850
Mar-13	3,045	134	325	2,937	180	6,621
Apr-13	3,386	155	470	2,888	196	7,095
May-13	2,327	135	367	1,613	204	4,646
Jun-13	2,088	134	326	1,380	172	4,100
Jul-12	1,732	515	--	1,458	225	3,930
Aug-12	2,357	682	--	2,029	255	5,323
Sep-12	3,161	388	245	2,568	187	6,549
Oct-12	3,675	345	278	2,760	280	7,338
Nov-12	2,785	227	209	2,133	233	5,587
Dec-12	1,650	131	230	1,245	209	3,465
Total	31,492	3,206	3,030	25,655	2,539	65,922

Note : Route 2 includes service to Mokelumne Hill in July and August.

Source: Calaveras Transit

Table 3: Calaveras Transit Revenues

FY 2012-13 Actual Revenues

	\$	% of Total
<u>Operating Revenue</u>		
Transportation Development Act (TDA) - State Transit Assistance (STA)	\$303,435	26.9%
Transportation Development Act (TDA) - Local Transit Fund (LTF)	\$560,069	49.6%
Federal Transit Administration (FTA) - 5311	\$166,634	14.7%
Passenger Fare Revenue	\$88,391	7.8%
Advertising Revenue	\$11,400	1.0%
<i>Subtotal</i>	<i>\$1,129,929</i>	<i>100.0%</i>
<u>Capital Revenue</u>		
State Bond (PTMISEA)	\$27,976	100.0%
<i>Subtotal</i>	<i>\$27,976</i>	<i>100.0%</i>
Total	\$1,157,905	

Source: Calaveras Transit

Expenses

Budgeted expenses related to the operations of Calaveras Transit for FY 2012-13 are presented in Table 4. Note that actual expenses were not available at the time of this writing. Total budgeted operating expenses for the fiscal year totaled \$1,192,151. The primary operating expense is the operating contract with Paratransit Services (\$592,437) followed by gas and oil expense (\$220,609).

Line Item	Allocation			Total Expense
	Fixed	Per Hour	Per Mile	
Salaries and Benefits	\$86,349			\$86,349
Maintenance of Equipment			\$132,977	\$132,977
Office Expenses and Legal Notices	\$950			\$950
Professional and Specialized Services	\$118,390			\$118,390
- Advertising				
Professional and Specialized Services	\$311,328	\$281,109		\$592,437
- Operating Contract				
Reimbursements to other County	\$14,903			\$14,903
Departments				
A 87 Charges	\$19,536			\$19,536
Gas and Oil Expense			\$220,609	\$220,609
Memberships	\$500			\$500
Special Debt Expense	\$5,000			\$5,000
Travel Expense	\$500			\$500
Total Operating Expenses	\$557,456	\$281,109	\$353,586	\$1,192,151
Service Factors for FY 2012-2013		Vehicle Service Hours	Vehicle Service Miles	
		8,738	263,174	
Vehicle Service Hour Cost Factor	\$32.17			
Vehicle Service Mile Cost Factor	\$1.34			
Annual Fixed Cost	\$557,456			

Source: Calaveras Transit FY 2012-13 Budget

Cost Allocation Model

When developing and evaluating service alternatives, it is useful to develop a "cost model," which can easily show the financial impact of any proposed changes. Table 4 also presents the FY 2012-13 cost allocation model for Calaveras Transit operations. It should be noted that the cost model shows the total operating cost rather than the total subsidy, which is total operating cost minus passenger fare revenues. Each cost item is allocated to that quantity on which it is most dependent. Maintenance costs, for example are allocated to vehicle service miles. This provides a more accurate estimate of costs than a simple total-cost-per-vehicle-hour factor,

which does not vary with the differing mileage associated with an hour of service on one route versus the other. For FY 2012-13, this equation is:

$$\begin{aligned} \text{Operating Cost} &= \$1.34 \times \text{vehicle service miles} \\ &\quad + \$32.17 \text{ per vehicle service hour} \\ &\quad + \$557,456 \text{ annually for fixed costs} \end{aligned}$$

This equation can be used to estimate the cost of any changes in service, such as the operation of additional routes or changes in service span. It is used as part of this study to evaluate the cost impacts of service alternatives. It should be noted that the cost model does not include depreciation or capital items (such as vehicle purchases) made during the fiscal year.

Calaveras Transit Performance Statistics

Table 5 presents FY 2012-13 data and performance indicators for each Calaveras Transit route. As indicated above, Route 2 (West Point) includes ridership to Mokelumne Hill. Route 1 (Valley Springs/Angels Camp) has the greatest ridership of all routes with 31,492 annual one-way passenger-trips, followed by Route 4 (Arnold/Columbia College) with 25,655 one-way passenger trips. The remaining routes carried around 3,000 one-way passenger trips for the year. Service levels (vehicle service hours and miles) follow ridership patterns, with Route 1 operating a total of 2,961 hours and 95,971 miles, Route 4 operating 3,272 hours and 89,652 miles and the remaining routes with lower service levels.

Transit performance or the efficiency/effectiveness of a transit service is often measured in terms of several performance indicators, as shown in the lower portion of Table 5.

The **average fare** paid on Calaveras Transit services is \$1.34. For reference, a general public one-way trip is \$2.00 and a discounted passenger may ride for \$1.00.

The financial efficiency of a transit system can be measured by the **operating cost per passenger-trip**. The systemwide operating cost per passenger-trip in FY 2012-13 was \$18.08. By route, operating cost per trip varies significantly. The West Point route had the highest operating cost per trip (\$47.58) and the Valley Springs/Angels Camp route recorded the lowest operating cost per trip (\$13.12).

When fare revenue is subtracted from the total operating cost and divided by the number of one-way passenger-trips, the **subsidy required per passenger-trip** is calculated. This performance measure is particularly important, as it directly compares the most significant public "input" (public subsidy funding) with the most significant "output" (passenger-trips). The system as a whole required a subsidy of \$16.74 per passenger-trip. As shown in the table, the West Point Route required the largest subsidy of \$46.20 per passenger-trip, followed by the Copperopolis Route at \$42.63 per passenger-trip. The lowest subsidy per trip occurred on the Valley Springs/Angels Camp Route, at \$11.77.

Another measure of each route's efficiency is provided by the **farebox recovery ratio**, defined as the total fare revenues (whether provided by the passenger in the farebox or by a private organization) divided by total operating costs. Farebox recovery ratio is particularly important as

TABLE 5: Calaveras Transit Operating Data and Performance Indicators

Fiscal Year 2012-13

	Route					Total
	1	2	3	4	3/5	
	Valley Springs/ Angels Camp	West Point	Jackson	Arnold / Columbia College	Copperopolis	
Operating Data						
One-Way Passenger Trips	31,492	3,206	3,030	25,655	2,539	65,922
Vehicle Service Hours	2,961	1,110	573	3,272	823	8,738
Vehicle Service Miles	95,971	34,242	18,473	89,652	24,836	263,174
Financial Data						
Marginal Operating Costs	\$224,186	\$81,717	\$43,247	\$225,713	\$59,832	\$634,695
Allocated Fixed Costs	\$188,874	\$70,817	\$36,543	\$208,741	\$52,480	\$557,456
Total Annual Operating Costs	\$413,060	\$152,534	\$79,791	\$434,455	\$112,311	\$1,192,151
Farebox Revenues	\$42,323	\$4,419	\$3,504	\$34,060	\$4,085	\$88,391
Subsidy Required	\$370,737	\$148,115	\$76,287	\$400,395	\$108,226	\$1,103,760
Performance Indicators						
Average Fare	\$1.34	\$1.38	\$1.16	\$1.33	\$1.61	\$1.34
Operating Cost Per Passenger Trip	\$13.12	\$47.58	\$26.33	\$16.93	\$44.23	\$18.08
Subsidy Per Trip	\$11.77	\$46.20	\$25.18	\$15.61	\$42.63	\$16.74
Farebox Recovery Ratio	10.2%	2.9%	4.4%	7.8%	3.6%	7.4%
Trips Per Vehicle Service-Hour	10.64	2.89	5.29	7.84	3.09	7.54
Trips Per Vehicle Service-Mile	0.33	0.09	0.16	0.29	0.10	0.25

Source: Calaveras Transit

Note : Route 2 includes service to Mokelumme Hill in July and August.

a measurement for meeting the mandated minimums required for state funding and is calculated by dividing fare revenue by operating costs. The systemwide farebox recovery ratio is 7.4 percent. The Valley Springs/Angels Camp route recorded the highest farebox recovery ratio (10.2 percent), followed by the Arnold/Columbia College Route (7.8 percent). The West Point Route recorded the lowest farebox ratio, 2.9 percent. Note that the simple formula used to calculate these figures differs from the specific requirements of the calculation used to calculate the ratio for the Transportation Development Act, and is not directly comparable.

An important measure of service effectiveness is productivity, defined as the number of **one-way passenger-trips provided per vehicle service hour**. As shown in the table, the system as a whole achieved a productivity of 7.54 one-way passenger-trips per vehicle service hour, ranging from 2.89 trips per hour to 10.64 trips per hour. The standard productivity goal for fixed routes is around 10.0 passenger-trips per hour.

Another measure of service effectiveness is the number of **one-way passenger-trips provided per vehicle service mile**. The systemwide average during the fiscal year was 0.25 one-way passenger-trips per vehicle service mile.

Previous Calaveras Transit Intercity Connections

Prior to 2009, Calaveras Transit operated an intercity transit route to Lodi using FTA 5311(f) funds. The route made four round trips per day from San Andreas to Lodi with scheduled stops in Valley Springs, Wallace, Clements, Lockeford, and Victor. Service was discontinued when LTF revenues shrank and because of the uncertainty of receiving discretionary FTA 5311(f) funds each year. Although the route did not perform as well as Route 1 or Route 4, it performed better than the Copperopolis and West Point routes. Historical operating characteristics of the Lodi route as identified in the 2008 SRTP are as follows:

- Farebox ratio in 2007-08 was 5.7 percent.
- Operating cost per trip was \$20.91.
- Historically, ridership increased from 4,208 one-way passenger trips in FY 2004-05 to 7,543 in FY 2007-08.
- Analysis of rides per day demonstrates that there was a slightly greater demand for transit service early in the week, Monday through Wednesday, than the remainder of the week.
- Seasonally, ridership on the Lodi Route was greatest during the spring (April, May and June) in 2008.

Boarding and alighting surveys for the Lodi route were conducted as part of the 2008 SRTP effort. The Lodi Downtown Station had the greatest number of average daily boardings (14) followed by the Valley Oak Center in Valley Springs (12). Eight average daily boardings were recorded at the Government Center in San Andreas.

The Lodi Route schedule allowed for a commuter living in Lodi to reach work in San Andreas by 8:00 AM and depart San Andreas just after 5:00 PM. However, Calaveras County residents

commuting to the Central Valley would have to leave San Andreas at 5:50 AM to arrive at the Lodi Downtown Station at 7:45 AM. The next arrival into Lodi was not until 10:15 AM. Likewise, the commute departure home from Lodi was at 1:30 PM or 6:30 PM. As such, boarding alighting data suggested that very few Calaveras County residents used the service for commuting, but rather used it for other purposes throughout the day. The route also supplemented service between Valley Springs and San Andreas.

The 2008 Calaveras Short Range Transit Plan analyzed several intercity service alternatives.

- Commuter Service to Stockton via SR 26 – Estimated to carry 3,500 additional one-way passenger-trips and cost \$74,200 (in 2007-08).
- NEMT Service to Stockton 1 Day per Week – Estimated to carry 300 one-way passenger trips and cost \$16,800 (in 2007-08).

Regional Public Transit Services

Tuolumne County Transit

Tuolumne County lies directly south of Calaveras County. A significant draw to Tuolumne County with respect to public transit is Columbia College, located a few miles north of Sonora. A significant proportion of ridership on Calaveras Transit Route 4 travels to Columbia College. Tuolumne County Transit (TCT) offers four fixed routes, two of which have timed connections with Calaveras Transit at Columbia College Monday through Friday. TCT Route 2 (Sonora) and Route 3 (Jamestown/Sonora) connect with Calaveras Transit at around 8:00 AM, 11:00 AM, 2:00 PM and 5:00 PM.

TCT does not provide out-of county public transit service. The community of Sonora is the location of most human service agencies, government services for Tuolumne County residents, as well as medical facilities such as the Sonora Regional Medical Center and multiple shopping and commercial opportunities. Although Calaveras County residents can access Sonora on public transit with a transfer to TCT at Columbia College, Sonora is not directly served by Calaveras Transit.

The 2008 Tuolumne County Coordinated Public Transit – Human Services Transportation Plan identified the following gaps and unmet transit needs that pertain to this study:

- Additional transit information supporting inter-county connections
- No direct connections with Greyhound and Amtrak
- Limited transportation out of county – The Senior Center and the Public Health Dental Connections program used to provide transportation out of county for appointments. Top two intercity destinations cited for medical appointments were Stockton and Modesto. Tuolumne County residents also need to access education and training at out-of-county centers, as well as the Social Security office in Modesto.

One of the Coordinated Plan high priority strategies was service to Modesto.

The Tuolumne County Transportation Council sees a potential opportunity for Calaveras and Tuolumne County to coordinate with respect to intercity transportation. In an effort to increase ridership on a Calaveras Transit out-of-county service, a joint intercity route could travel between Angels Camp, pick up/drop off passengers in Sonora and terminate in Modesto. In general, Tuolumne County residents have a greater out-of-county need to the Central Valley than to Calaveras County.

As part of the *Yosemite Service Analysis* Report prepared for TCT, Mobility Planners/Transit Marketing conducted a survey of Tuolumne County residents' travel patterns to Modesto and Manteca. The results demonstrated the following:

- Roughly 30 percent of respondents travel to Modesto every month.
- Roughly 16 percent of respondents travel to Manteca every month.
- Asked if they would consider using YARTS to travel from Sonora to Modesto, 16 percent said they would seriously consider it and 24 percent said they might consider it.

The Yosemite Service Analysis Report analyzed alternatives involving YARTS providing intercity service between Sonora and Modesto in addition to service to Yosemite. At the time of this writing a final plan had not yet been made public.

Amador Transit

Amador Transit operates fixed route and DAR service in Amador County, just north of Calaveras County. The draw to Amador County for Calaveras County residents is the variety of commercial services/shopping in Jackson and Sutter Hill. All Amador Transit routes begin and end at the Sutter Hill Transit Center. Amador Transit operates a commuter service (two round trips per day) to Sacramento. As identified above, Calaveras Transit connects with Amador Transit's Jackson/Sutter Creek Shuttle at Raley's in Jackson; however no one-day intercity connections to Sacramento are possible. Closely timed connections to the Amador Transit Jackson-Sutter Creek shuttle are possible at Raley's around 9:00 AM, Noon and 3:00 PM.

Historically, Amador and Calaveras counties have coordinated on transportation projects. For a period of time, Amador Transit service extended into Calaveras County as far as Mokelumne Hill. This was discontinued in 2012. Currently, Calaveras Transit is considering extending the transfer point beyond Jackson to the Sutter Hill Transit Center. Although this is not advertised, Calaveras Transit will take passengers to the Sutter Hill Transit Center by request. Over a two month period, there have been roughly two requests per week to transfer from Columbia College to Angels Camp to Sutter Hill in the 3 PM hour.

According to Amador Transit staff, very few Amador County residents have a need to ride public transit to Calaveras County. It is more likely that Calaveras Transit passengers require transportation to Amador County or Sacramento and therefore would benefit from timed connections at the Sutter Hill Transit Center. As discussed in the demand section, several Community Compass program participants travel to Amador County from Calaveras. Most of these participants either use Blue Mountain Transit or Calaveras Transit. Amador County also has a Wal-Mart and Kmart, which are not available in Calaveras County. There appears to be a need for some West Point residents to reach these services. Although Amador residents rarely travel to San Andreas, there is a need to travel to Lodi for specialized medical, services such as

dialysis. Amador Transit would be willing to collaborate with Calaveras Transit on some type of non-emergency medical transportation to Lodi.

The 2008 Amador County Public Transit – Human Services Coordinated Plan identified the following gaps and unmet transit needs:

- Insufficient service to Sacramento and Lodi/Stockton for non-emergency medical trips.

San Joaquin Regional Transit District (RTD)

San Joaquin RTD offers extensive public transit services throughout the San Joaquin Valley. Generally service is available seven days a week with limited service on weekends. This includes:

- Metro Routes: Fixed route service around the Stockton metropolitan area
- Intercity Fixed Routes: Connects Stockton with Lodi, Tracy, Tracy Depot, Manteca, Ripon, and Lathrop
- Commuter Service: Subscription bus service connecting San Joaquin County to Sacramento, the Bay Area, and BART. Generally for commuters who travel more than 50 miles one way.
- Hopper Routes: Deviated fixed-route bus service connecting Ripon, Escalon, Manteca, Lathrop, Thornton, Woodbridge, French Camp, Morada, and Linden to Stockton, Tracy, and Lodi.
- Dial-A-Ride Service: ADA paratransit service is available for those unable to use the fixed routes.

San Joaquin Council of Governments

Efforts were made to contact the San Joaquin Council of Governments, City of Lodi and RTD. San Joaquin COG staff indicated that no unmet transit needs have been identified with respect to service from San Joaquin County to Calaveras County. There are no significant transit changes proposed in San Joaquin County. Most projects have revolved around expanding multi-modal transit centers.

RTD staff indicated that with prior approval and coordination Calaveras Transit would be able to use RTD's three transit centers:

- Hammer Triangle Station (7800 North Lower Sacramento Rd, Stockton)
- Mall Transfer Station (200 W Yokuts Ave, Stockton), adjacent to two malls and Delta College
- Downtown Transit Center (421 Weber Street, Stockton)

The Mall Transfer Station includes multiple passenger amenities and would be the ideal stop for Calaveras residents attending Delta College. RTD staff also suggested that Calaveras Transit

staff attend an SJCOG Interagency Transit Committee meeting to remain current on transit issues and changes in San Joaquin County.

Stanislaus Regional Transit (StaRT)

StaRT public transit services are based out of Modesto in Stanislaus County. Most fixed routes connect at the Downtown Transit Center at the intersection of 9th and I Streets in Modesto. Transit service is available within the City of Modesto and as far as northeast as Oakdale, off of SR 108 and as far south as Merced on SR 99. StaRT is in service Monday through Saturday.

Stanislaus Council of Governments

The Stanislaus Council of Governments collected input from the various transit operators in the region regarding this study. A variety of intercity and regional transit connections are possible at the Modesto Downtown Transit Center:

- ◆ Modesto Area Express (MAX) – Service throughout Modesto including connections to Amtrak and Altamont Commuter Express (ACE)
- ◆ StaRT
- ◆ Greyhound

If Calaveras Transit were able to connect to services in Modesto, they should contact the respective transit agency to coordinate use of bus stops. The transit operators in Stanislaus County are unaware of any transit needs of Stanislaus residents to travel to Calaveras County.

Rideshare Databases

Commuter Connection Commute Connection is a Regional Rideshare Agency and a program of the San Joaquin Council of Governments (SJCOG). Carpools and vanpools are organized for commutes into the Central Valley. Discussions with staff indicated that only a handful of Calaveras County residents have registered with the program.

Human Service Agency Transportation Providers

A significant proportion of intercity transit demand stems from human service agencies. Program participants often require transportation to medical facilities or other services in more urbanized areas. Several of these agencies provide transportation for their clients and others rely on public transit. These agencies are discussed in greater detail in Chapter 3.

Other Intercity Transportation Services

Greyhound

There is no Greyhound bus service available in Calaveras County. The closest Greyhound terminals are located at the Lodi Station (24 South Sacramento St., transfers to Lodi Grape Line and Amtrak), Stockton (121 South Center St., transfers to San Joaquin RTD) and Modesto (1001 9th St., transfers to StaRT, Modesto Area Express). Currently, there is no Greyhound service east of the Central Valley. In the past, Greyhound provided service between Sonora and

Modesto. Roughly two to six passengers used the service daily. The service was cancelled in 2005 due to low ridership.

Amtrak

The Amtrak Rail and Thruway network also does not serve Calaveras County or any Gold Country area east of the Central Valley and south of US 50. The closest Amtrak stations are in Lodi, Stockton, and Modesto. The Amtrak station in Lodi is located at 24 South Sacramento Street which is also served by the Lodi Grape Line. No ticketing is available. In Stockton, Amtrak buses stop at the ACE Robert J. Cabral Station but ticketing is only available at the station on 735 South Joaquin Street in downtown. Departure/arrival times on the San Joaquin route vary, but depart every two to three hours. Passengers can transfer to San Joaquin RTD at either station.

Altamont Corridor Express (ACE)

The Altamont Corridor Express train travels between the Robert J. Cabral Station on Channel Street in Stockton to Manteca, Tracy, Pleasanton, and as far as San Jose. There are four morning departures from Stockton (4:20 AM, 5:35 AM, 6:40 AM, and 7:05 AM) and four afternoon departures from San Jose (3:35 PM, 4:35 PM, 5:35 PM and 6:38 PM). A one-way trip takes about two hours.

Airports

Although Calaveras County has a general aviation airport in San Andreas, the closest major commercial airport is Sacramento International Airport, 80 miles away.

Intercity Transportation Activity Centers

Figure 4 provides a visual reference for the various intercity transit activity centers to which Calaveras Transit residents may require transportation. These include medical facilities, connecting public transit services, connecting intercity transit services (Amtrak/Greyhound) and airports.

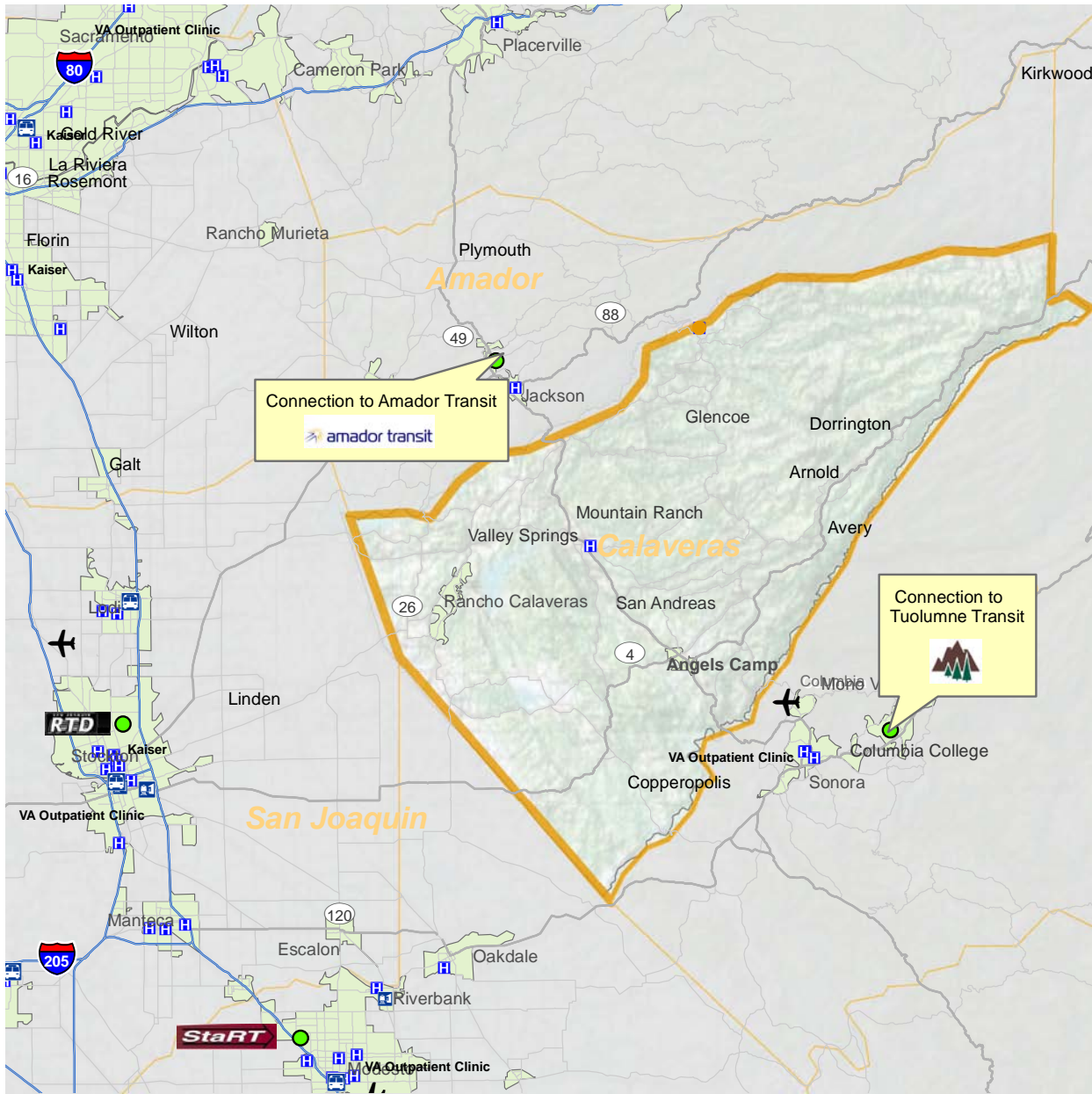
Intercity Bus Network







The California Rural Intercity Bus Service network is identified in the *California Rural Intercity Bus Study* prepared for Caltrans in 2008. There is no intercity public transit service connection from Calaveras County to Greyhound services, the Amtrak network, a major commercial airport, or a connecting rural intercity transit provider.

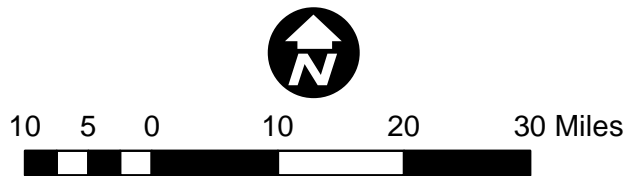
FTA 5311(f) Requirements

The Federal Transit Administration includes a transit grant program specifically for intercity bus service. Fifteen percent of the FTA 5311 grant program funding is allocated to the 5311(f) program for intercity bus services in response to a need to connect rural counties to the statewide intercity bus network such as Greyhound or Amtrak. One of the key elements of the intercity bus program is that a 5311(f) funded service should provide a “meaningful connection”

Figure 4
Caleveras County Intercity Transit Activity Centers



-  Greyhound Stations
-  AMTRAK Stations
-  Airports
-  Hospital
-  Urban Areas
-  Transit Center



(transfer within two hours either side of the schedule) to the established intercity bus network or other 5311(f) rural intercity bus service providers. National program objectives are as follows:

OBJECTIVE #1: To support the connection between non-urbanized and the larger regional or national system of intercity bus service.

- *State Emphasis: Provide a meaningful connection where intercity bus stations/intermodal terminals should be a primary destination or a designated stop on a public street immediately adjacent to the station.*

OBJECTIVE #2: To support services to meet the intercity travel needs of residents in non-urbanized areas.

- *State Emphasis: Maintaining a focus on establishing a meaningful connection and connectivity to other modes of transportation. Meet broader transportation needs at other common locations (i.e. medical facility, shopping center).*

OBJECTIVE #3: To support the infrastructure of the intercity bus network through planning and marketing assistance and capital investment in facilities.

- *State Emphasis: Informational outreach marketing methods that enhance coordination, ridership, increase mobility, quality of service, and service efficiency. Filling gaps in service on the California Intercity Bus Network, identified through planning and/or feasibility studies to include new service, routes, and/or public-private partnership that directly benefit the California intercity bus transportation network.*

Intercity bus service to be funded by this grant program should incorporate the following elements:

- *Limited stops – The service should have limited stops but should include a set stop at a “transit gateway” or intermodal terminal such as a Greyhound Terminal or Amtrak station which includes a ticketing office, restrooms and other vendors. Other stops along the route such as at medical facilities or shopping centers should be limited to three.*
- *Connect two or more urban areas not in close proximity – Close proximity is defined as communities located within fifteen miles of each other.*
- *Capacity for transporting baggage – The intercity bus should include racks above the seating area, or a designated outer compartment where luggage can be carried safely.*
- *Provide meaningful connections and reasonable lay-over times – A meaningful connection is that which allows connectivity at a designated physical location serviced by intercity bus carriers, either directly, or on the street immediately adjacent to the facility, allowing transfers for both outbound and inbound passengers within a two-hour time frame upon either side of the rural service schedule (four hours total).*

Approximately \$3.6 million was available in federal funding for FY 2013. Operating projects require a 44.67 percent match, while capital projects require an 11.47 percent match. There is a maximum award limit of \$300,000. For the most recent FTA 5311(f) cycle, applicants could use state Transportation Development Credits (Toll Credits) as the local match for the project. Therefore, in essence no local match was required.

The first step in designing potential out-of-county public transit service is to determine the needs of specific transit user groups likely to use the service and analyze their demand for the service. This chapter explores a variety of potential intercity transit demand sources such as demographics, employment, medical needs, and accessing the national intercity passenger transportation network.

POPULATION CHARACTERISTICS

Population

As shown Table 6, the population of Calaveras County was approximately 45,794 in 2011, according to the US Census *American Community Survey*. The highest populations are found in the Census Tracts in the Valley Springs area (22 percent of the countywide total), San Andreas/Mountain Ranch (14 percent) and Rancho Calaveras (13 percent).

Potentially Transit Dependent Population

Nationwide, transit system ridership is drawn largely from various groups of persons who make up what is often referred to as the “transit dependent” population. This category includes youth, elderly persons, persons with disabilities, low income persons, and members of households with no available vehicles. There is considerable overlap among these groups. Table 6 presents the estimated transit dependent population by census tract in Calaveras County for 2011.

The youth population, ages 5 to 19 years old, make up roughly 17.5 percent of the Calaveras County population. Census Tract 2.1 (Valley Springs) has the largest concentration of youths, followed by Census Tract 2.2 (Rancho Calaveras) and Census Tract 3.0 (San Andreas/Mountain Ranch). Together, these areas represent 62.8 percent of all the youths in the county. Per the American Community Survey, there are no persons under the age of 19 in Census Tract 5.04 (Dorrington).

There are an estimated 9,501 persons aged 65 or over residing in the study area (or 20.7 percent of the total population). The census tract with the highest proportion of older adults is Census Tract 5.04 (Dorrington) with nearly 50 percent of the area over the age of 65. However, this represents only 352 people. The lowest concentration of older adults exists within Census Tract 2.2 (Rancho Calaveras), 12.6 percent of the population of the census tract or a total of 754 people. In terms of total numbers, Valley Springs has the largest number of persons over age 65, (1,794).

Low-income persons are another likely market for transit services, as measured by the number of persons living below the poverty level. An estimated 3,751 low-income persons reside in the study area, representing 8.2 percent of the total population. Roughly 21.1 percent of low-income individuals (800 persons) reside in the San Andreas/Mountain Ranch Census Tract 3.0. The next largest concentration of low-income persons is in Valley Springs, Census Tract 2.1 (671 people) and Railroad Flat/WestPoint, Census Tract 4.0 (635 persons).

TABLE 6: Calaveras County 2011 Population Characteristics

Census Tract	Area Description	Total Population	# of Housing Units	Youth (5-19)			Elderly (65+)			Below Poverty			Zero Vehicle Housing Units		
				#	% of Census Tract	% of Study Area	#	% of Census Tract	% of Study Area	#	% of Census Tract	% of Study Area	#	% of Census Tract	% of Study Area
1.20	Copperopolis	4,728	2,778	948	20.1%	2.1%	723	15.3%	1.6%	139	3.7%	0.3%	26	3.9%	0.9%
1.21	Angels Camp	4,201	2,283	421	10.0%	0.9%	1,083	25.8%	2.4%	400	10.7%	0.9%	82	12.4%	3.0%
1.22	Vallecito/Murphys	4,165	2,129	532	12.8%	1.2%	1,171	28.1%	2.6%	314	8.4%	0.7%	226	34.2%	8.1%
2.1	Valley Springs	10,254	4,094	2,384	23.2%	5.2%	1,794	17.5%	3.9%	671	17.9%	1.5%	27	4.1%	1.0%
2.2	Rancho Calaveras	5,978	2,431	1,415	23.7%	3.1%	754	12.6%	1.6%	334	8.9%	0.7%	25	3.8%	0.9%
3.0	San Andreas/Mountain Ranch	6,446	3,411	1,026	15.9%	2.2%	1,401	21.7%	3.1%	800	21.3%	1.7%	83	12.6%	3.0%
4.0	Railroad Flat/West Point	4,298	2,370	704	16.4%	1.5%	910	21.2%	2.0%	635	16.9%	1.4%	120	18.2%	4.3%
5.01	Forest Meadows/Avery	3,365	2,644	308	9.2%	0.7%	782	23.2%	1.7%	241	6.4%	0.5%	0	0.0%	0.0%
5.03	Arnold	1,636	3,482	280	17.1%	0.6%	531	32.5%	1.2%	214	5.7%	0.5%	23	3.5%	0.8%
5.04	Dorrington	723	2,201	0	0.0%	0.0%	352	48.7%	0.8%	3	0.1%	0.0%	49	7.4%	1.8%
TOTAL STUDY AREA		45,794	27,823	8,018	17.5%	17.5%	9,501	20.7%	20.7%	3,751	8.2%	8.2%	661	2.4%	2.4%

Source: 2011 American Community Survey 5-Year Estimates, US Census Bureau, 2013

The number of housing units without a vehicle available is estimated at 661, as also shown in Table 6. This represents only 1.4 percent of occupied housing units in Calaveras County. The greatest concentration of zero-vehicle housing units, 34.2, is in Census Tract 1.22 Vallecito/Murphys.

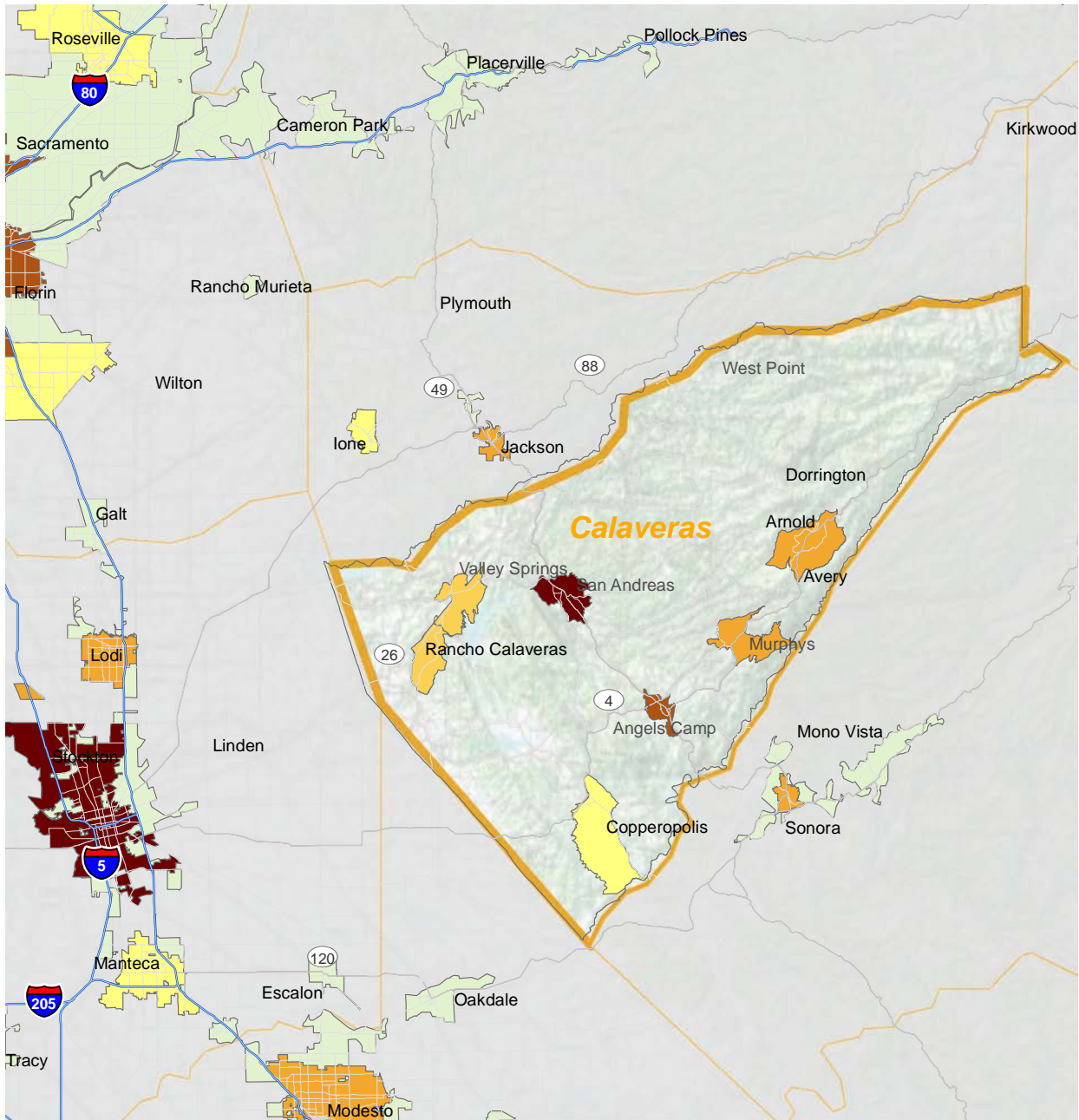
COMMUTE PATTERNS

Information on commute patterns for 2011 was obtained through the US Census Bureau *Longitudinal Employer-Household Dynamics* dataset and presented in Table 7 and Figures 5 and 6. Out of roughly 20,000 employed residents, 6.8 percent or 1,354 residents report that their work location is in Stockton. This represents the second largest Census Place of work for Calaveras County employed residents (San Andreas being the first). Other common out-of-county work destinations include: Sacramento (3.5 percent, 703 persons), Lodi (2.6 percent, 525 persons), San Jose (2.3 percent, 467 persons), and Jackson (2.1 percent, 428 persons). In terms of commute flow into Calaveras County, the largest group of inter-county commuters comes from Stockton (1.3 percent, or 93 persons), followed by Lodi (1.2 percent, 89 persons). It should be noted that this data reflects all persons reporting their work location, regardless of how often they commute.

Where Calaveras County Residents Work			Where Calaveras County Workers Live		
Census Place	# of Jobs	% of Total	Census Place	# of Jobs	% of Total
San Andreas	1,397	7.0%	Angels Camp	623	8.6%
Stockton	1,354	6.8%	Rancho Calaveras	503	6.9%
Angels Camp	709	3.5%	San Andreas	336	4.6%
Sacramento	703	3.5%	Copperopolis	333	4.6%
Lodi	525	2.6%	Valley Springs	309	4.2%
San Jose	467	2.3%	Murphys	252	3.5%
Jackson	428	2.1%	Arnold	216	3.0%
Murphys	408	2.0%	Mountain Ranch	192	2.6%
San Francisco	406	2.0%	Forest Meadows	103	1.4%
Modesto	384	1.9%	West Point	99	1.4%
Sonora	361	1.8%	Stockton	93	1.3%
Arnold	355	1.8%	Lodi	89	1.2%
Valley Springs	290	1.4%	Mokelumne Hill	83	1.1%
Oakland	264	1.3%	Rail Road Flat	69	0.9%
Fresno	225	1.1%	Sonora	63	0.9%
Rancho Calaveras	201	1.0%	Dorrington	61	0.8%
Copperopolis	177	0.9%	Vallecito	53	0.7%
Los Angeles	161	0.8%	Jackson	51	0.7%
Roseville	154	0.8%	Avery	46	0.6%
Reno, NV	123	0.6%	Modesto	41	0.6%
Manteca	120	0.6%	Sacramento	40	0.5%
Elk Grove	119	0.6%	Wallace	40	0.5%
Merced	118	0.6%	Jamestown	39	0.5%
Pleasanton	115	0.6%	Columbia	37	0.5%
lone	113	0.6%	San Jose	36	0.5%
All Other Locations	10,331	51.6%	All Other Locations	3,469	47.7%
Total	20,008		Total	7,276	

Source: US Census LEHD OntheMap application.

**Figure 5
Where Calaveras County Residents Work**



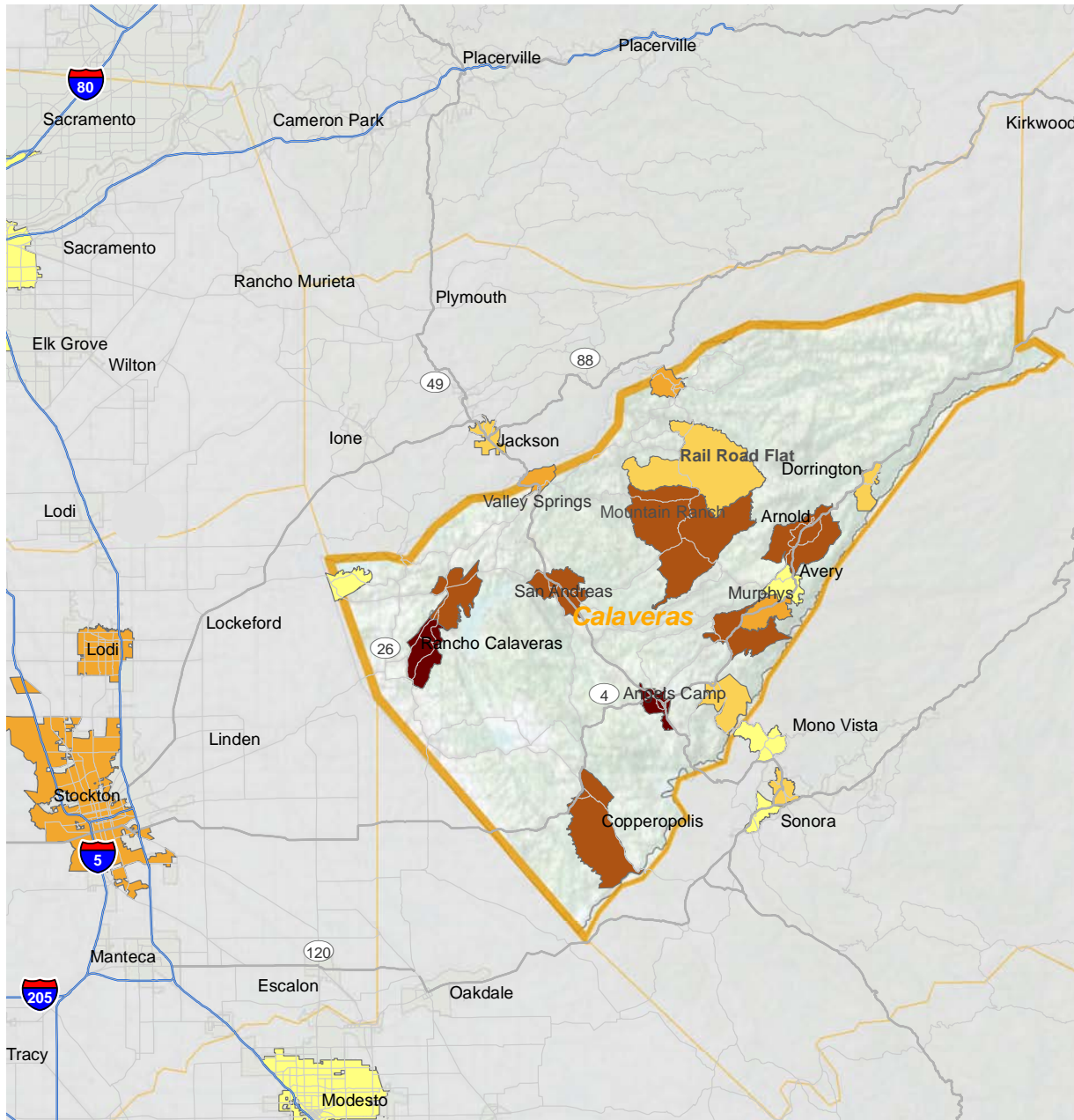
Legend

Where Calaveras County Residents Work

- 113 - 177 people
- 178 - 290 people
- 291 - 525 people
- 526 - 709 people
- 710 - 1397 people



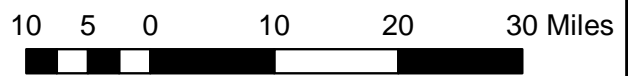
Figure 6
Where Calaveras County Workers Live



Legend

Where Calaveras County Workers Live

- 36 - 46 people
- 47 - 69 people
- 70 - 103 people
- 104 - 336 people
- 337 - 623 people



UNMET TRANSIT NEEDS

Before Local Transportation Funds (LTF, the primary funding source for public transit) can be used for local streets and road purposes by Calaveras County and the City of Angels, all unmet transit needs determined to be “reasonable to meet” must first be funded. This determination occurs on an annual basis, in which CCOG conducts an Unmet Transit Needs hearing and Social Services Transportation Advisory Council (SSTAC) meeting. Input from this process is considered and compared to the adopted definition of and “Unmet Transit Need” and “Reasonable to Meet” and an Unmet Transit Needs Report is prepared. CCOG has adopted the following definitions.

“Unmet Transit Need”:

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

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

The definition excludes:

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

“Reasonable to Meet” is established according to the following criteria:

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

- B. Cost Effectiveness. Supporting data demonstrates sufficient ridership and revenue potential exists for the new, expanded or revised transit service to meet or exceed the required farebox revenue-to-operating cost ratios on a stand-alone basis; except in case of an extension of service determined to be a necessary lifeline service for transit-dependent populations. Furthermore, cost-per-passenger is reasonable when compared to the level of service provided, benefit accrued to the community and to existing service cost-per-passenger.*
- C. Community Acceptance. There is sufficient public support for the proposed transit service, as indicated through the annual public hearing process.*
- D. Equity. The proposed transit service would benefit either the general public or the elderly population and persons with disabilities as a whole. Transit Service will not be provided favoring one group at the exclusion of any other.*
- E. System Impact. It has been demonstrated to the CCOG Board that the proposed transit service combined with existing service will allow the system to meet or exceed performance standards such as the cost-per-passenger trip, cost-per-service-hour, passenger trips-per-service hour, passenger trip-per-service mile, on time performance and vehicle service hours-per-employee. The proposed service does not duplicate transit services currently provided either publicly or privately. The proposed service is in response to an existing rather than a future need.*
- F. Operational Feasibility. There are adequate roadways and turnouts to safely accommodate transit vehicles.*
- G. Availability of Services Provided. A qualified contractor is available to implement the service.*

Any new intercity transit service should meet the criteria listed above.

The Unmet Transit Needs report for FY 2013-14 identified several unmet transit needs which should be addressed in the Intercity Feasibility Study:

- Better connections with neighboring counties and regional transit systems
- Service from Valley Springs to Lodi
- Service from San Andreas to Stockton for medical appointments
- Service from Valley Springs to Stockton and BART
- Service from Arnold to Stockton or Modesto

HUMAN SERVICE AGENCY DEMAND

Public, private and non-profit human service agencies serve a significant portion of Calaveras County's transit dependent population. Many of these agencies have communicated through the

SSTAC that there is a great need for non-emergency medical transportation out-of-county. As part of the transit demand review, the Study Team contacted a variety of human service agencies to obtain input on intercity transit needs.

CalWORKS

CalWORKS is a County funded program which provides a path for clients to be self-sufficient through employment, such as the Welfare to Work program. CalWORKS purchases bus tickets for clients who require transportation to program activities. Approximately \$3,000 to \$5,000 per month is spent on transportation. Roughly 20 Welfare to Work participants require transportation to Jackson or Columbia College/Sonora, at least three times a week. Some students attend Delta College in San Joaquin County. Most participants are able to walk up to $\frac{3}{4}$ of a mile to a bus stop. The challenge with providing transportation for many Welfare to Work participants is that their jobs tend to be non-traditional work hours, such as evenings and weekends. Only on rare occasions will a CalWORKS employee transport a participant to an appointment.

Volunteer Center of Calaveras

The Volunteer Center maintains a countywide database of volunteers for organizations and persons in need of assistance. Through the Safety Net Transportation Program, volunteers provided roughly 30 one-way passenger trips per month for all types of purposes. Most of the trips are for destinations in Stockton, although participants also require transportation to Sonora, Jackson, Lodi, Sacramento, Modesto, San Francisco and Livermore. Volunteers are reimbursed for mileage for a total program cost of roughly \$4,000 per year. Funding for the program is provided through private donations and Volunteer Center General Funds.

Creative Support Alternatives

Creative Support Alternatives (CSA) provides supported living services and independent living services to people with developmental disabilities. CSA is funded through the Valley Mountain Regional Center and currently serves around 28 persons. Program participants often require transportation to shopping services, medical appointments and the Social Security Office. The majority live centrally in San Andreas and would be able to catch a bus from the Government Center. Common destinations include: Stockton (medical, dental), Lodi (dental), Placerville (Social Security), and UC Davis Medical Center in Sacramento. Transportation needs for CSA participants are sporadic. It is estimated that CSA would generate intercity transit demand of roughly 10 one-way passenger trips (to all the above locations) per month.

Valley Mountain Regional Center

VMRC provides a variety of services for people with cognitive and developmental disabilities. This includes day programs, advocacy, vocational assistance, and independent living counseling. VMRC is funded through the State Department of Developmental Services. VMRC purchases bus passes for consumers on Calaveras Transit as well as contracts with Blue Mountain Transit to provide transportation to programs such as the ARC of Calaveras County. VMRC staff indicated that Lodi and Stockton are the most common out-of-county medical appointment destinations. They also stressed a need for public transportation which travels deeper into neighborhoods

and shopping centers as well as more service between San Andreas and Valley Springs. There are two care homes funded through VMRC which are not directly served by public transit: five residents live at 6588 Garner in Valley Springs and five residents live at 6022 Crosel in Valley Springs.

The ARC of Calaveras County

The ARC provides day programs and services for persons with developmental disabilities such as life skills, computer skills, relationship skills, and vocational opportunities. The ARC facility is located at 153 Bellevue Street in San Andreas. Programs begin at 9:00 AM and end at 3:00 PM. Roughly 55 people are enrolled in ARC Programs, with approximately 40 attending programs on a daily basis. A significant proportion of ARC consumers are able to walk three-quarters of a mile to a bus stop; however, some consumers may require curb to curb transit service. The ARC purchases roughly \$100 worth of tickets each month on Calaveras Transit for program participants. The ARC contracts with Blue Mountain Transit to provide transportation for people served by ARC from their homes to ARC programs, while ARC staff provides transportation for program activities using five minivans (one of which is wheelchair accessible).

ARC program participants travel to Jackson roughly three times a week, in groups of five, for shopping, employment, recreation and other appointments. Another frequent intercity destination is Lodi. A group of five may travel to Lodi once a week for mobility training and shopping. Columbia College is the most common travel destination and it is currently served by public transit. Roughly 15 consumers travel to Columbia College twice a week for an employment program. Intercity transit would be beneficial for ARC program participants as long as departure and arrival times coincided with program hours.

Area 12 Agency on Aging

This organization provides services and information for older adults age 60 and above. Staff has received requests for transportation to Sacramento, Stockton, Palo Alto (VA Hospital) and UC Davis. The agency does not provide transportation.

Common Ground Senior Services (CGSS)

Common Ground Senior Services is based out of Jackson in Amador County and provides services for seniors in both Amador and Calaveras counties. Programs include Meals on Wheels, as well as congregate lunches at senior centers and restaurants. CGSS has been able to secure its own funding to provide transportation for clients within Amador County but this service does not extend into Calaveras County. CGSS sees a need for increased transportation to medical appointments. One need in particular is the VA Clinic in Stockton. Unfortunately, seniors often require out-of-county medical appointments on short notice and with little regularity, making it difficult for a scheduled bus service to serve this need.

Catholic Charities

Catholic Charities offers a variety of services for older adults in Tuolumne and Calaveras counties. Programs range from long-term care, legal services, socialization and advocacy. Staff has indicated that many clients are in need of transportation out-of-county for various reasons. Although the Senior Centers provide some transportation, they are unable to go outside of

Calaveras County. Roughly two clients each week require transportation to intercity destinations such as Modesto, Lodi, and San Francisco. Up until June of this year, Catholic Charities had roughly a \$15,000 transportation budget to put towards some type of assistance to help clients reach out-of-county destinations. This funding has since been eliminated due to budget constraints. As a result, the agency has had to turn down requests for transportation.

Resource Connection

The Resource Connection is a private, non-profit human service agency which offers a variety of services for Calaveras County residents: Childcare Resources, Head Start, Calaveras Crisis Center, Mother Lode Women Infant Children Program and Community Services/Food Bank. The Early Childhood program may generate some intercity transit demand.

Community Compass in Amador County

The Community Compass provides a behavioral management program in Sonora and Jackson. The agency is a vendor for the Department of Developmental Services. The Compass also offers services to individuals with developmental disabilities. According to staff, roughly 13 Compass clients travel from Calaveras County on a daily basis to Jackson. Four of these program participants use Calaveras Transit while the others arrive on the chartered transportation service, Blue Mountain Transit. Staff indicated that Calaveras Transit service direct to Jackson without a transfer in Mokelumne Hill has allowed a few more clients to use public transit.

Veterans Affairs (VA)

Sonora, Stockton, Modesto and Sacramento are the closest VA outpatient clinics for Calaveras County residents. The closest VA hospital facilities are located in Livermore, Palo Alto and San Francisco. The Sonora VA clinic offers transportation to the Livermore and Palo Alto VA Hospitals by request, departing Sonora at 5:45 AM and returning around 7:30 PM. A Calaveras County resident would not be able to make a trip to the Livermore facility on public transit without an overnight stay in Sonora. Sonora VA clinic staff indicated that they receive calls from roughly 10 veterans each month living outside of Sonora (many in Calaveras County) who require transportation to the clinic. The VA is unable to provide this type of transportation.

Summary

Table 8 summarizes estimated one-way passenger trip intercity transit demand generated by clients/program participants of the human service agencies interviewed. As shown, roughly 1,458 combined one-way passenger-trips could be generated each month from all intercity destinations identified. This includes demand that is already being met such as through Blue Mountain Transit or Calaveras Transit. Many clients would require demand response service instead of fixed route service. Most agencies indicated that there is greater demand for transportation beyond what Calaveras Transit provides and what their budgets allow.

COLLEGE STUDENT DEMAND

A significant percent of ridership on Calaveras Transit routes is generated by students. According to the on-board surveys conducted for the 2008 SRTP, roughly 43 percent of survey respondents stated that their trip purpose was "school/college". According to discussions with Calaveras Transit staff and as reflected in boarding and alighting surveys from the 2009 SRTP, many students attending Columbia College live in Valley Springs and transfer in Angels Camp to

Table 8: Potential Intercity Transit Demand from Human Resource Agencies

Agency	Client Trips per Month Equivalent	Destinations	Purpose	Actual Trips Provided	Cost of Transportation	Need Curb to Curb?
Volunteer Center	30	Stockton (mainly) Sonora Jackson Lodi Sacramento Modesto San Francisco Livermore		10 - 15 per month	\$4,000/year	Yes
CSA	10	Stockton Lodi Placerville UC Davis	Dentist, medical, near main hospital Dentist Social Security Medical			No
ARC	120 40 240	Jackson Lodi Columbia College	Shopping, recreation, work, appointments Mobility training, shopping Supported employment program			Some
Community Compass	520	Jackson	Program	520 per month through Blue Mountain and Calaveras Transit		No
CalWORKS	240 240	Jackson Columbia College/Sonora	Welfare to Work Program Welfare to Work Program		\$48,000/year	No
Common Ground Seniors	2	Stockton	VA clinic			
Catholic Charities	16	Modesto San Francisco Lodi	Medical		\$15,000/year	Yes
TOTAL	1,458					

Route 4. Delta College in Stockton is a shorter distance and drive time from Valley Springs than Columbia College. Currently there is no transit service to Delta College from Calaveras County.

Demand generated from college students may require a different type of transit service from non-emergency medical trips for older adults, referenced above in the Human Service Agency Demand section. Route 4 to Columbia College uses a larger vehicle during the morning and afternoon runs whereas curb to curb type of service may be required for seniors.

PEER INTERCITY TRANSIT DEMAND

There are several rural intercity transit operators in California which provide transportation to urban centers and the intercity transportation network. Three of these FTA 5311(f) funded services are described below and compared in Table 9.

Table 9: Peer Intercity Transit Services Ridership Demand					
	Annual Ridership	Annual Vehicle Service Miles	Population Served	Annual Ridership per Capita	Passenger- trips per mile
Sage Stage Reno Route ⁽¹⁾	773	NA	9,517	0.08	NA
ESTA - 395 North Route	3,109	85,749	32,787	0.09	0.04
ESTA - 395 South Route	3,889	62,493	32,787	0.12	0.06
Redwood Coast Transit Authority ⁽²⁾ Smith River - Arcata Route	6,400	146,940	28,659	0.22	NA
<i>Average</i>	<i>3,543</i>	<i>98,394</i>	<i>25,938</i>	<i>0.13</i>	<i>0.05</i>
Note 1: Only includes ridership originating or ending in Modoc County.					
Note 2: Estimated annual ridership based on two runs between Smith River and Arcata mid-week only.					

Sage Stage

In response to Greyhound discontinuing bus service along the northern portion of US 395 between Alturas and Reno, Sage Stage began intercity public transit service from Alturas to Susanville three days a week. The service is funded by FTA 5311(f) funds as well as transit funds from Lassen County. For an extra fare, passengers can be picked up at various locations in Alturas and shuttled to the beginning of the intercity route. There are stops in communities along the way such as Susanville and Madeline. The service stops at the Reno Airport and Amtrak/Greyhound terminal. As this route travels 173 miles each way, Sage Stage charges a significant fare in comparison to regular public transit services. The full one-way trip fare to Reno is \$32.00.

Approximate annual ridership for 2011/12 was 773 one-way passenger-trips. After dividing by the population of Modoc County, this equates to 0.08 one-way trips per capita.

Eastern Sierra Transit Authority

Eastern Sierra Transit Authority (ESTA) provides transit services for Inyo and Mono counties along the east side of the Sierras. As in Modoc County, Greyhound service is no longer available along US 395 between Reno, NV and Mojave in Southern California. The ESTA 395 North Route operates four days a week between Mammoth Lakes and Reno. The ESTA 395 South Route travels between Mammoth Lakes and Lancaster, three days a week. As shown in Table 9, the 395 South Route carried 3,889 one-way passenger trips in FY 2012-13 and operated a total of 62,493 vehicle service miles while the 395 North Route carried 3,109 one-way passenger trips and operated 62,493 vehicle service miles. Ridership per capita (based on the combined population of both Inyo and Mono counties) is 0.04 for the 395 North Route and 0.12 for the 395 South Route. The North Route carried 0.09 passenger-trips per vehicle mile and the South Route carried 0.06 trips per vehicle service mile.

Redwood Coast Transit Authority

In the northwestern most corner of the state, Redwood Coast Transit Authority (RCTA) runs an intercity route between Smith River and the transit center in Arcata where connections to Amtrak and Greyhound are possible. Two day time runs and one night run are operated between Smith River and Arcata. Additional runs add service between Crescent City and Smith River. Ridership was estimated for the Smith River to Arcata day time runs only (not including the night run and additional service between Crescent City and Smith River) using a sample of boarding data. Roughly 6,800 one-way passenger trips are carried annually on those runs. As the population of Del Norte County is 28,659, ridership per capita equates to 0.22 trips per capita.

On average, these peer intercity transit services carried 0.13 one-way passenger-trips per capita and 0.09 one-way passenger-trips per mile. Applying the per capita ratio to Calaveras County, a Calaveras Intercity transit service has the potential to carry 6,000 one-way passenger trips annually.

TCRP DEMAND ESTIMATION TECHNIQUES

Intercity Demand

Transportation Cooperative Research Program (TCRP) Report 147: Toolkit for Estimating Demand for Rural Intercity Bus Services developed a sketch planning tool that could be used to forecast demand for rural intercity bus services. The research project resulted in a regression model based on collected data from intercity routes and yielded the following equation:

$$\begin{aligned} \text{Ridership} = & -2803.536 + 0.194 (\text{Average Origin Population}) \\ & +314.734 (\text{Number of Stops on the Route}) \\ & +4971.668 (\text{Airport service or connection?}) \\ & +5783.653 (\text{Operated by an intercity provider}) \end{aligned}$$

The study team also reviewed 2001 National Household Travel Survey (NHTS) data to estimate intercity trip rates for populations by state and income level. A transit mode split of one percent

was assumed. In an effort to make this demand estimation technique user friendly, the study team created a "Toolkit" in Microsoft Excel based on the regression equation and NHTS trip rates. The Toolkit applies the equations to population data from the 2000 Census. Data points for Calaveras County were entered into the spreadsheet. For an intercity route which travels roughly 50 miles one-way from Angels Camp to Stockton with a stop in San Andreas, Rancho Calaveras and Valley Springs, roughly 2,200 one-way passenger trips per year were estimated using the trip rate model. Applying the regression model, if the proposed Stockton service were to be operated by a recognized "Intercity Bus Carrier", the transit demand would increase to around 5,000 annual trips. This additional ridership is because a seamless connection with Greyhound, such as interlining ticketing, would increase ridership. Neither the regression model nor the trip rate model are based on service frequency, but rather represent a general base case demand estimate for intercity transit services.

Commute Demand

Another research report, TCRP B-36, provides methods for forecasting more general rural transit demand. The model was based on statistics provided by national data centers such as the US Census Bureau and the National Transit Database as well as input from various transit service agencies which participated in workshops and surveys. A spreadsheet tool was developed as part of the most recent update to the techniques. The tool includes a section to estimate rural transit demand for commuters to urban centers. The tool assumes a transit mode split of two percent. As shown in Table 7, roughly 1,354 Calaveras County residents work in the urban area of Stockton. According to the tool, transit commute demand from Calaveras County resident to Stockton (the most common commute destination) equates to roughly 11,700 one-way passenger trips.

CALAVERAS COUNTY TRAVEL DEMAND TRANSCAD MODEL

The Calaveras County Travel Demand TransCAD Model, developed by as part of the Regional Transportation Plan Update and also used as part of the Calaveras County General Plan update was reviewed to obtain a better understanding of overall vehicle trip patterns. Table 10 presents total travel data for the County summarized into key areas, and represents daily one-way trips. Calibrated against observed traffic volumes, the model provides vehicle trip information for all trip purposes. Overall, the model indicates that 73 percent of vehicle-trips wholly or partially within Calaveras County are internal trip (within the county), 25 percent have one trip end or the other outside of the county, and 2 percent are passing through the county.

The model demonstrates that the out-of-county origin/destination pair with the greatest number of trips is between Valley Springs and SR 26 in San Joaquin County (2,519). This would be the most direct route to Stockton. Closely following is Valley Springs and SR 12 in San Joaquin County (2,147), which is the route to Lodi. Other notable origin/destination pairs are between Copperopolis and SR 4 West to Stockton (1,688) and between San Andreas and SR 12 to Lodi (1,043). Trips between San Andreas and Jackson in Amador County via SR 49 are lower (932), as are trips between Angels Camp and Tuolumne County via SR 49 South (760). The Travel Demand Model estimates that there are significantly more vehicle trips between Calaveras County and the Central Valley as between Calaveras County and Sonoma or Jackson.

Table 10: Calaveras County Daily Vehicle Trips Origin/Destination

Existing Conditions

Internal-Internal External-External External-Internal Internal-External

Origin	Destination															
	Arnold	City of Angels	Copperopolis	San Andreas	Valley Springs	West Point	SR 4 East (Alpine Co.)	Parrots Ferry (Tuolumne Co.)	SR 49 South (Tuolumne Co.)	O'Byrnes Ferry (Tuolumne Co.)	SR 4 West (San Joaquin Co.)	Milton Road (Stanislaus Co.)	SR 26 (San Joaquin Co.)	SR 12 (San Joaquin Co.)	SR 49 North (Amador Co.)	SR 26 North (Amador Co.)
Arnold	18,248	1,143	80	369	64	209	587	368	293	69	40	11	0	63	225	32
City of Angels	1,143	22,301	1,138	972	389	189	103	675	760	293	366	32	0	0	481	157
Copperopolis	80	1,138	4,779	140	77	2	17	90	63	723	1,688	61	0	0	66	0
San Andreas	369	972	140	14,594	1,655	537	40	115	217	60	0	16	0	1,043	932	178
Valley Springs	64	389	77	1,655	18,375	49	0	69	188	96	0	296	2,519	2,147	676	186
West Point	209	189	2	537	49	5,988	5	12	22	8	0	2	0	0	170	615
SR 4 East (Alpine Co.)	587	103	17	40	0	5	0	0	0	0	0	0	0	0	0	0
Parrots Ferry (Tuolumne Co.)	368	675	90	115	69	12	0	0	0	0	0	0	0	0	0	0
SR 49 South (Tuolumne Co.)	293	760	63	217	188	22	0	0	0	0	106	0	265	371	531	0
O'Byrnes Ferry (Tuolumne Co.)	69	293	723	60	96	8	0	0	0	0	0	0	0	0	0	0
SR 4 West (San Joaquin Co.)	40	366	1,688	0	0	0	0	0	106	0	0	0	0	0	0	0
Milton Road (Stanislaus Co.)	11	32	61	16	296	2	0	0	0	0	0	0	0	0	0	0
SR 26 (San Joaquin Co.)	0	0	0	0	2,519	0	0	0	265	0	0	0	0	0	0	0
SR 12 (San Joaquin Co.)	63	0	0	1,043	2,147	0	0	0	371	0	0	0	0	0	0	0
SR 49 North (Amador Co.)	225	481	66	932	676	170	0	0	531	0	0	0	0	0	0	0
SR 26 North (Amador Co.)	32	157	0	178	186	615	0	0	0	0	0	0	0	0	0	0

Source: Calaveras Trans-Cad Travel Demand Model

COMMUNITY PHONE SURVEY

In order to gather information on trip making patterns in the County and opinions regarding transit services, telephone surveys were conducted throughout Calaveras County. The phone numbers were randomly selected through a marketing company database, and telephone surveys were completed for 152 Calaveras County households in July and August of 2013. Additionally, a similar survey was posted on www.surveymonkey.com and advertised through the Calaveras Enterprise, Valley Springs News and Calaveras Transit. To date a total of 18 on-line surveys have been completed. The results of both surveys were combined and analyzed below. The survey questionnaire and additional comments are provided as Appendix A. Survey results are listed in Tables 11 through 23 and Figures 7 through 14.

In reviewing the survey findings it should be noted that survey responses do not necessarily equate to transit demand. Many variables such as the frequency and convenience of the transit service factor into a residents' decision to actually make the trip on public transit.

The same survey form was distributed to Calaveras Transit passengers. Twenty surveys were completed. These responses are summarized in Appendix B.

SURVEY FINDINGS

Background Information

Background information reported by survey respondents is displayed in Table 11.

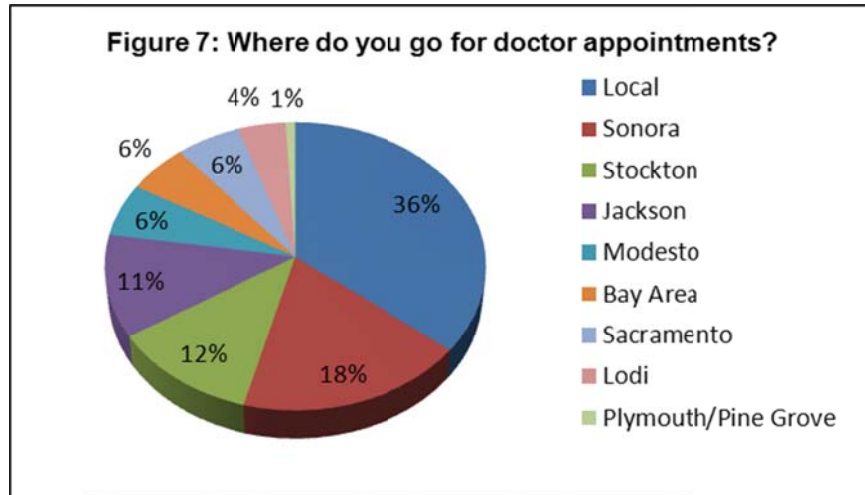
- Out of a total of 169 responses that identified the community of residence, 40 respondents or 23.5 percent stated they lived in Valley Springs. The other communities which represented over 10 percent of total respondents were in order: Murphys, San Andreas and Angels Camp.
- A larger proportion of phone survey respondents were female (64.6 percent or 93 persons) and 35.4 percent or 51 persons were male.
- Respondents were asked how many people live in their household. The average respondent household had 2.13 persons.
- Considering the age of all respondents and their household members, just under half (48.4 percent) are 65 years or older. Roughly one quarter, 25.0 percent, are age 25 to 54 and another 23.4 percent are age 55 to 64. The remaining 3.2 percent are under 24 years old.
- An important data point for a public transit survey is to determine the number of transit dependent persons. Approximately 84.8 percent of respondents and household members (291 persons) stated they could drive.
- Further, 37.8 percent of the households interviewed have two vehicles available, another 30.5 percent of the households have one vehicle available. Only 2.4 percent (4 out of 165 participating households) had no vehicles available.

Table 11: Community Survey Background Questions

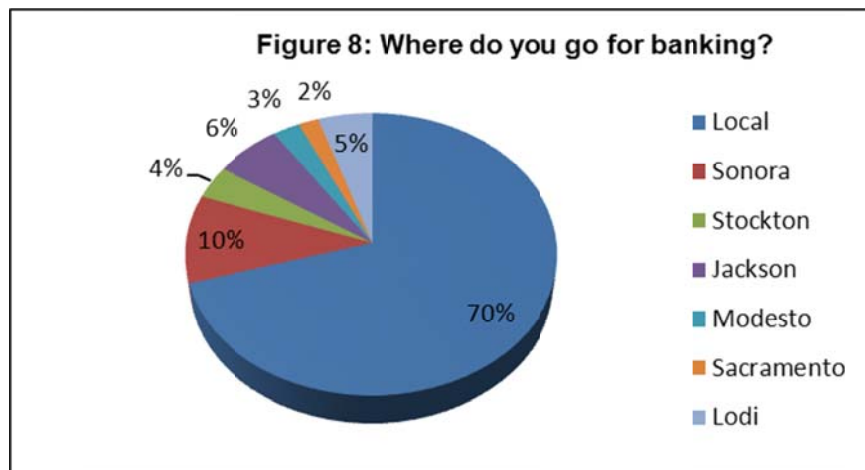
What community do you live in?			Q4: Age of respondent and household members:											
Valley Springs	40	23.7%												
Murphys	20	11.8%												
San Andreas	23	13.6%												
Angels Camp	18	10.7%												
Mokelumne Hill	14	8.3%												
Mountain Ranch	14	8.3%												
Copperopolis	15	8.9%												
Arnold	6	3.6%												
West Point	3	1.8%												
Glencoe	3	1.8%												
Camp Connell	2	1.2%												
Sheep Ranch	3	1.8%												
Avery	1	0.6%												
Altaville	1	0.6%												
Burson	1	0.6%												
Farmington	1	0.6%												
Rail Road Flat	1	0.6%												
Wallace	1	0.6%												
Vallecito	1	0.6%												
Pine Grove	1	0.6%												
Total	169	100.0%	Q5: How many household members can drive? <table border="1"> <tr> <td>Yes</td> <td>290</td> <td>84.8%</td> </tr> <tr> <td>No</td> <td>52</td> <td>15.2%</td> </tr> <tr> <td>Total</td> <td>342</td> <td>0.0%</td> </tr> </table>			Yes	290	84.8%	No	52	15.2%	Total	342	0.0%
Yes	290	84.8%												
No	52	15.2%												
Total	342	0.0%												
Gender (phone survey only)			Q6: How many cars do you have in your household?											
Female	93	64.6%												
Male	51	35.4%												
Total	144	100.0%												
Q3: Number of people in household:														
Average:	2.13													

Travel Patterns

- Respondents were asked where they travel for doctor’s appointments most of the time. Many respondents noted multiple communities. As shown in Figure 7, just fewer than 30 percent of respondents, the greatest proportion, identified local destinations within Calaveras County. The next greatest response for doctor’s appointments was Sonora (18.1 percent), followed by Stockton (11.8 percent), and Jackson (11.4 percent).

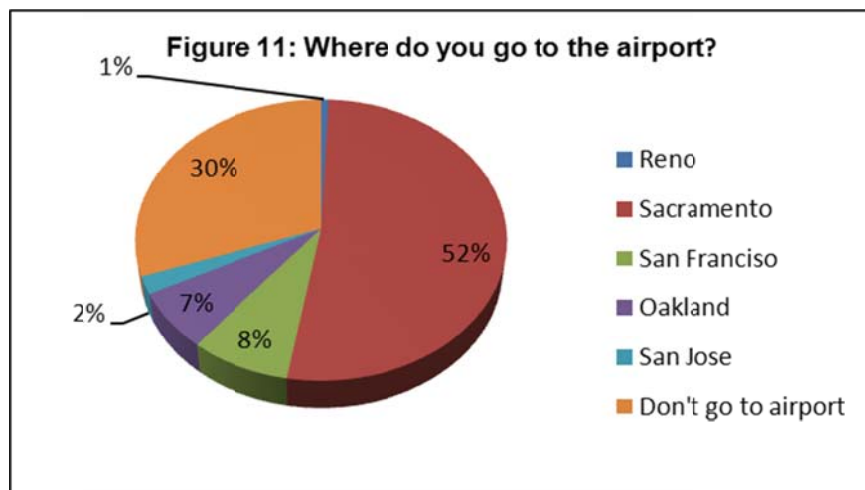
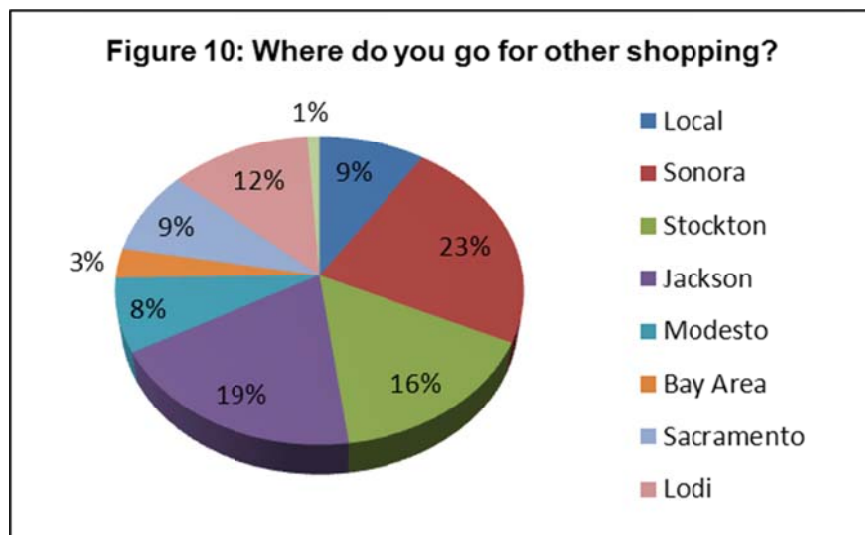
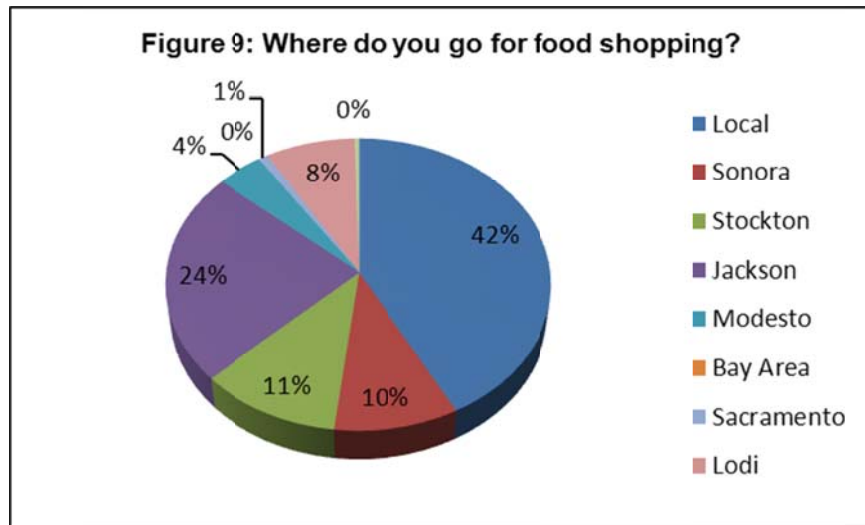


- As shown in Figure 8, the majority, or 70.4, percent stay local for banking. Just over 10 percent of respondents travelled as far south as Sonora for banking, another 6.3 percent travelled north to Jackson, while 5.0 percent travel to Lodi for banking.

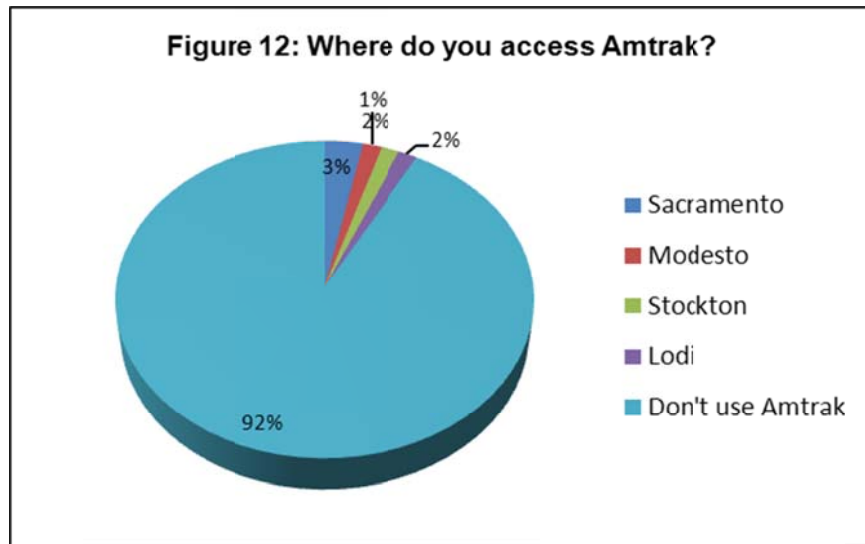


- The greatest proportion of respondents choose to do their food shopping within the county (42.2 percent), as shown in Figure 9. However, a significant number travel to Jackson (23.6 percent) which is currently served by public transit. Another 11.0 percent do their food shopping in Stockton, followed by 9.7 percent in Sonora, and 8.0 percent in Lodi. Again, respondents often identified more than one location for food shopping.
- Responses were more varied for the answer to, “Where do you go for other shopping?” The greatest response, as shown in Figure 10, was Sonora (22.7 percent), closely followed by Jackson (19.1 percent) and Stockton (16.0 percent). Local destinations represented only 9.3 percent.
- Rural intercity routes should provide access to major transportation systems such as air and rail. Just over half of survey respondents (52.0 percent) access commercial airline service at Sacramento International Airport, as shown in Figure 11. Another 30.4 percent of

respondents indicated that they do not go to the airport while a much smaller percentage travel to San Francisco (8.1 percent) or Oakland (6.8 percent) airports.

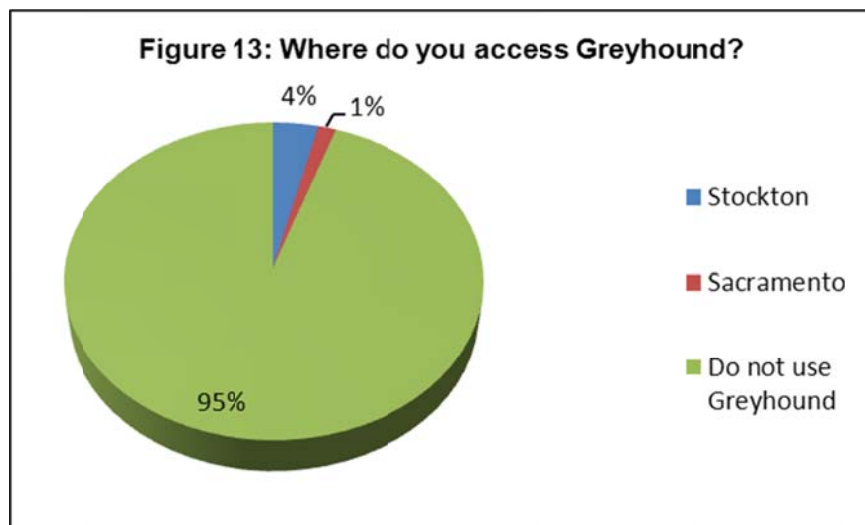


- The overwhelming majority of respondents do not use Amtrak (92.1 percent). Of those that do, the largest number of respondents access Amtrak in Sacramento (4 respondents) while a handful access Amtrak in Lodi, Stockton or Modesto (2 respondents each). Results are displayed in Figure 12.



- Similarly, Figure 13 indicates that few respondents use Greyhound (5.2 percent). Stockton is the more common destination for accessing Greyhound services (5 respondents), although 2 respondents identified Sacramento.

Figure 14 graphically summarizes the results of Question 7: Where do you go for doctor, food shopping, other shopping, and to access intercity transit services. For example, when asked "Where do you go for food shopping?" 42.2 percent stated that they stay local within Calaveras County, 23.6 percent go to Jackson, and 11.0 percent go to Stockton etc. It should be noted that the proportion of respondents stating that they do not use Amtrak, Greyhound, or the airport are not shown on the map. Additionally, "Bay Area" responses are also not presented.



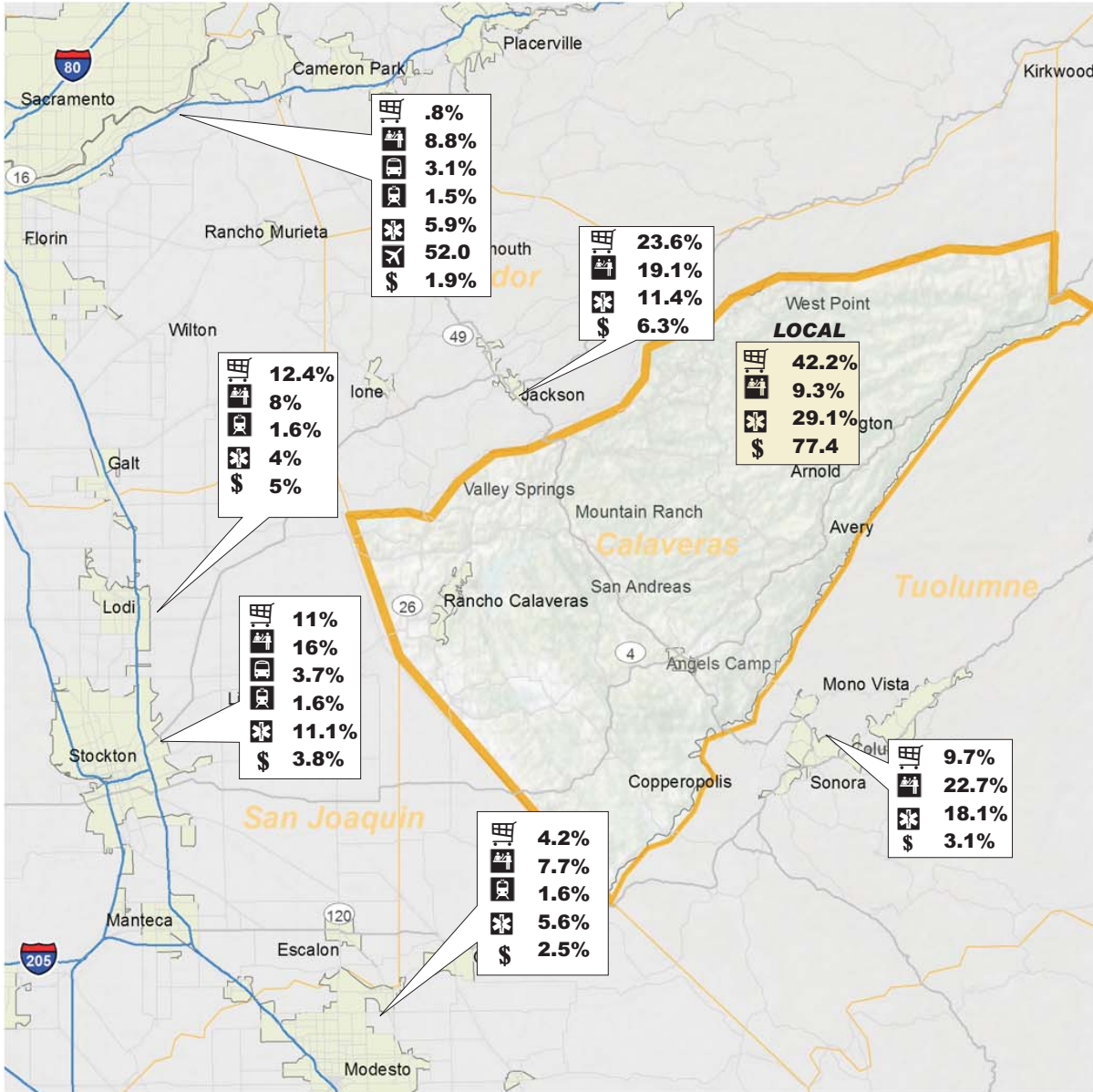
A series of cross-tab summaries (community live in vs. Question 7) were performed to determine common intercity travel patterns for important services such as medical appointments, food shopping, other shopping, and banking. The results are presented in Tables 12 – 15.

- When considering out-of-county travel, the greatest number of respondents identified Sonora for doctor appointments; however the most common origin/destination pair for doctor appointments was between Valley Springs and Stockton (19 responses). This was followed by Angels Camp to Sonora (10 responses) (Table 12).
- As shown in Table 13, the most common trip pattern for food shopping is also between Valley Springs and Stockton (18 responses). This origin/destination pattern received the same number of responses as the highest local food shopping trip pattern between Angels Camp and local destinations (18 responses). San Andreas to Jackson was another common trip pattern (17 responses).
- The most common trip patterns for “other shopping” are Valley Springs to Stockton (13 responses), Angels Camp to Sonora (13 responses), and Murphys to Sonora (12 responses) (Table 14).
- The majority of banking is conducted locally (Table 15). However, a few respondents travel between Valley Springs and Stockton (7 responses) and Mokelumne Hill and Jackson (5 responses).

In the next section of the survey, respondents were asked a series of questions in regards to timing, frequency and purpose of travel to the following destinations: Columbia College, Jackson, Lodi, Modesto, Sacramento, Sonora, Stockton and the Bay Area.

- With respect to frequency of travel to the potential intercity transit service destinations (Table 16), Jackson (currently served by public transit) is the most common destination with 59.8 percent of respondents travelling there at least 1 time per month. As many as 11.0 percent travel to Jackson more than 10 times per month. Sonora is another common destination with 42.2 percent travelling there at least once a month, followed by Stockton (33.7 percent), and Lodi (32.5 percent).

Figure 14
Where Calaveras County Residents Go For Shopping,
Medical Appointments, Banking and Intercity Transportation



Footnote: Graphic does not include % of respondents stating that they do not use Greyhound, Amtrak, or airport. Graphic does not include Bay Area responses.



- Food Shopping
- Other Shopping
- Greyhound
- Amtrak
- Doctor
- Airport
- Bank

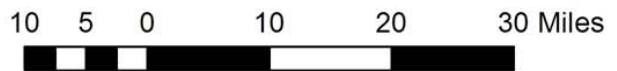


Table 12: Community Survey Response Trip Patterns

Where do you go for doctors appointments?

		Local	Sonora	Stockton	Jackson	Modesto	Bay Area	Sacramento	Lodi	Total
Residence Area	Valley Springs	23	3	19	5	3	3	2	7	65
	Murphys	8	10	1	0	3	0	1	1	24
	San Andreas	1	5	2	5	0	2	4	0	19
	Angels Camp	10	10	1	0	0	4	1	0	26
	Mokelumne Hill	5	0	0	8	0	0	3	1	17
	Mountain Ranch	10	7	2	4	0	0	2	1	26
	Copperopolis	4	3	2	1	6	3	0	0	19
	Arnold	6	5	1	0	1	0	1	0	14
	West Point	2	0	1	5	0	1	0	0	9
	Total	69	43	29	28	13	13	14	10	219

Table 13: Community Survey Response Trip Patterns

Where do you go for food shopping?

		Local	Sonora	Stockton	Jackson	Modesto	Bay Area	Sacramento	Lodi	Total
Residence Area	Valley Springs	17	1	18	16	1	0	1	11	65
	Murphys	16	7	1	0	3	0	0	1	28
	San Andreas	12	3	3	17	0	0	0	3	38
	Angels Camp	18	3	1	1	1	1	0	1	26
	Mokelumne Hill	5	0	1	11	0	0	0	1	18
	Mountain Ranch	11	1	1	7	0	0	1	2	23
	Copperopolis	8	6	1	0	4	0	0	0	19
	Arnold	10	2	0	0	1	0	0	0	13
	West Point	1	0	0	5	0	0	0	0	6
	Total	98	23	26	57	10	1	2	19	236

Table 14: Community Survey Response Trip Patterns

Where do you go for other shopping?

		Local	Sonora	Stockton	Jackson	Modesto	Bay Area	Sacramento	Lodi	Total
Residence Area	Valley Springs	4	1	13	8	2	3	4	14	49
	Murphys	4	12	2	1	3	0	0	0	22
	San Andreas	3	6	3	9	0	0	2	4	27
	Angels Camp	2	13	4	4	5	1	2	1	32
	Mokelumne Hill	1	0	5	8	0	0	4	2	20
	Mountain Ranch	1	4	3	5	0	0	5	3	21
	Copperopolis	2	4	1	0	5	1	0	0	13
	Arnold	2	3	1	0	2	2	0	0	10
	West Point	0	0	0	1	0	1	1	0	3
	Total	19	43	32	36	17	8	18	24	197

Table 15: Community Survey Response Trip Patterns

Where do you go for banking?

		Local	Sonora	Stockton	Jackson	Modesto	Bay Area	Sacramento	Lodi	Total
Residence Area	Valley Springs	25	0	7	4	2	0	1	6	45
	Murphys	17	3	0	0	0	0	0	0	20
	San Andreas	18	1	0	1	0	0	0	0	20
	Angels Camp	15	4	0	0	0	0	0	0	19
	Mokelumne Hill	6	0	0	5	0	0	0	0	11
	Mountain Ranch	15	1	0	1	0	0	0	0	17
	Copperopolis	7	5	1	0	2	0	0	0	15
	Arnold	7	0	0	0	1	0	0	0	8
	West Point	2	0	0	3	0	1	0	0	6
	Total	112	14	8	14	5	1	1	6	161

Table 16: How many times do you travel to the following locations?

	Columbia College	Jackson	Lodi	Modesto	Sacramento	Sonora	Stockton	Bay Area
Never	90.0%	24.4%	50.3%	66.3%	54.6%	34.2%	47.0%	65.8%
< 1 time per month	3.1%	15.9%	17.2%	13.8%	20.9%	23.6%	19.3%	18.0%
1 - 4 times per month	1.3%	32.3%	25.2%	13.8%	16.6%	22.4%	19.9%	11.8%
5 - 10 times per month	2.5%	16.5%	6.7%	5.0%	4.9%	12.4%	8.4%	2.5%
10+ times per month	3.1%	11.0%	0.6%	1.3%	3.1%	7.5%	5.4%	1.9%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

A large proportion of respondents, 90 percent, stated that they never go to Columbia College. Calaveras Transit currently serves the college and it is less likely that the students using this route have a land telephone line and therefore would not be captured as part of this survey. At least half of respondents indicated that they never go to the Bay Area, Sacramento, Lodi, or Modesto.

- As shown in Table 17, there is no definitive day of the week which respondents travel to intercity destinations, although weekdays are more common than weekends. Respondents were allowed to answer multiple days of the week.

Table 17: What day of the week do you travel to the following locations?

	Columbia College	Jackson	Lodi	Modesto	Sacramento	Sonora	Stockton	Bay Area
Monday	17.2%	14.9%	11.4%	17.0%	14.8%	15.9%	15.8%	12.9%
Tuesday	17.2%	13.8%	14.4%	14.8%	11.1%	11.7%	15.2%	14.5%
Wednesday	17.2%	15.9%	18.2%	17.0%	12.0%	13.8%	16.5%	16.1%
Thursday	13.8%	14.4%	14.4%	10.2%	16.7%	11.7%	16.5%	9.7%
Friday	17.2%	13.3%	14.4%	13.6%	12.0%	11.7%	13.9%	21.0%
Weekends	6.9%	7.7%	9.1%	4.5%	16.7%	9.7%	7.0%	25.8%
Varies	10.3%	20.0%	18.2%	22.7%	16.7%	25.5%	15.2%	0.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

- Morning is the most common time of day for survey respondents to travel to all the intercity destinations reviewed (Table 18), although a significant number of respondents stated that it varies. Respondents were allowed to answer multiple times of the day.

Table 18: What time of day do you travel to the following locations?

	Columbia College	Jackson	Lodi	Modesto	Sacramento	Sonora	Stockton	Bay Area
Morning	45.5%	47.0%	50.0%	47.4%	47.9%	46.5%	53.8%	41.7%
Midday	9.1%	20.5%	19.6%	19.3%	7.6%	14.9%	18.7%	6.3%
Afternoon	0.0%	9.1%	6.5%	7.0%	10.1%	11.9%	5.5%	8.3%
Evening	0.0%	1.5%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Varies	45.5%	22.0%	18.5%	26.3%	34.5%	26.7%	22.0%	43.8%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

- Table 19 displays respondent's trip purpose when travelling to the intercity destinations.
 - o Columbia College – As to be expected, 60 percent of respondents travel there for school.
 - o Jackson – Shopping is the most common trip purpose (57.6 percent of respondents) as Raley's and other large stores are accessible by Calaveras Transit here. Another 23.2 percent of respondents travel here for medical purposes as well.
 - o Lodi – Shopping is also the most common response, with 62.6 percent of respondents, followed by medical, at 22.0 percent.

	Columbia College	Jackson	Lodi	Modesto	Sacramento	Sonora	Stockton	Bay Area
Medical	10.0%	23.2%	22.0%	28.4%	19.0%	36.1%	34.7%	12.5%
Shopping	10.0%	57.6%	62.6%	55.4%	39.0%	53.1%	52.0%	17.9%
School	60.0%	1.1%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Work	10.0%	6.2%	2.2%	5.4%	6.0%	1.4%	6.1%	10.7%
Airport/Bus Station	10.0%	0.6%	0.0%	2.7%	15.0%	0.0%	1.0%	12.5%
Family/Friends/Personal	0.0%	10.7%	5.5%	6.8%	16.0%	3.4%	3.1%	39.3%
Fun/Recreation/Exercise	0.0%	0.6%	5.5%	1.4%	5.0%	6.1%	3.1%	7.1%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

- o Modesto – A similar pattern is seen for respondents travelling to Modesto: 55.4 percent for shopping and 28.4 percent for medical.
- o Sacramento – Trip purpose for Sacramento responses varied more than the other intercity destinations, although shopping was still the most common response (39.0 percent). Other purposes included medical (19.0 percent), family/friends/personal (16.0 percent), and airport/bus station (15.0 percent).
- o Sonora – Shopping (53.1 percent) and medical (36.1 percent) had the greatest responses.
- o Stockton - Shopping (52.0 percent) and medical (34.7 percent) had the greatest responses.
- o Bay Area – Roughly 39.3 percent of respondents stated that they travel to the Bay Area for family/friends/personal reasons. Another 17.9 percent travel there for shopping, while 12.5 percent travel to connect with air or bus services.

In general shopping is the most common trip purpose among all intercity destinations, with the exception of Columbia College and the Bay Area.

- The number of stops respondents make at each of the intercity destinations is relevant, as it decreases the propensity to using public transit. As shown in Table 20, a fair number of respondents indicated that they make three or more stops. In Stockton, 41.4 percent of respondents make three stops. In Jackson, 41.7 percent of respondents make three stops and in Modesto and Sonora 33.3 percent make three stops. Roughly 21.7 percent of respondents make four or more stops in Sacramento. Roughly 17.8 percent of respondents make four or more stops in Sonora. The destinations with the greatest number of respondents stating that they make only one stop were Columbia College and the Bay Area.
- Of those who make more than one stop in these intercity destinations, 92.0 percent stated that the stops are greater than two miles apart. This provides a greater challenge to encouraging residents to ride the bus instead of driving their vehicle.

Table 20: How many stops do you make at the following locations?

	Columbia College	Jackson	Lodi	Modesto	Sacramento	Sonora	Stockton	Bay Area
Only one stop	100.0%	13.0%	34.3%	20.8%	43.3%	20.0%	20.0%	53.7%
Two stops	0.0%	28.7%	41.8%	35.4%	18.3%	28.9%	25.7%	22.0%
Three stops	0.0%	41.7%	16.4%	33.3%	16.7%	33.3%	41.4%	9.8%
Four or more stops	0.0%	16.7%	7.5%	10.4%	21.7%	17.8%	12.9%	14.6%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

- A small percentage of respondents stated that they stay overnight at the intercity destinations. The Bay Area (30.6 percent) and Sacramento (14.6 percent) had the greatest proportion of respondents staying overnight (Table 21).

Table 21: Do you ever stay overnight at the following locations?

	Columbia College	Jackson	Lodi	Modesto	Sacramento	Sonora	Stockton	Bay Area
Yes	0.0%	3.6%	3.6%	3.5%	14.6%	2.1%	3.6%	30.6%
No	100.0%	96.4%	96.4%	96.5%	85.4%	97.9%	96.4%	69.4%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Travel Mode

- As shown in Table 22, the majority of respondents would not ride public transit to any of the intercity destinations. The destination where the greatest number of respondent said they would take public transit was Jackson, at 50.3 percent. Sonora is another destination to which respondents are more likely to take transit (42.2 percent). Interestingly, 84.4 percent of respondents stated they would not take public transit to Columbia College, although this destination is a stop on one of Calaveras Transit's high ridership routes. This reflects the fact that the majority of respondents are not students and therefore, not likely to go to Columbia College. At least 70 percent of respondents stated that they would not take public transit to Lodi, Modesto, Stockton or the Bay Area.

- Respondents were then asked why they would take public transit to the intercity destinations. The answers generally corresponded with trip purpose answers in question 11 or Table 19 (travel to intercity destinations, regardless of mode of transportation). Shopping is the trip purpose with the greatest response except for Columbia College (school), Sacramento (travel/intercity transportation), and the Bay Area (fun). Overall, a larger number of respondents to question 15 (Table 22) stated that they would take public transit to the intercity destinations for fun or recreation versus for question 11 (Table 19).
- Phone survey respondents were asked whether they or household members had ever used Calaveras Transit. Roughly 81.6 percent or 208 respondents indicated they had not used public transit.

Table 22: Would you ride public transit to?								
	Columbia							
	College	Jackson	Lodi	Modesto	Sacramento	Sonora	Stockton	Bay Area
Yes	15.6%	50.3%	29.9%	24.5%	32.0%	42.2%	26.4%	29.3%
No	84.4%	49.7%	70.1%	75.5%	68.0%	57.8%	73.6%	70.7%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
If so, for what purpose?								
	Columbia							
	College	Jackson	Lodi	Modesto	Sacramento	Sonora	Stockton	Bay Area
School	83.3%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Shopping	8.3%	56.2%	60.9%	45.2%	18.4%	53.6%	47.6%	7.7%
Medical	0.0%	16.4%	13.0%	23.8%	14.3%	26.1%	26.2%	2.6%
Fun	0.0%	19.2%	15.2%	21.4%	22.4%	14.5%	16.7%	48.7%
Family	0.0%	1.4%	4.3%	4.8%	14.3%	1.4%	2.4%	23.1%
Work	8.3%	4.1%	4.3%	4.8%	2.0%	2.9%	4.8%	7.7%
Travel/Intercity Transportation	0.0%	0.0%	0.0%	0.0%	28.6%	0.0%	0.0%	10.3%
Homeless Shelter	0.0%	0.0%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Church	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%
Social Security Office	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	0.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

- Lastly, phone survey respondents were asked **why** they do not use Calaveras Transit. The most common response was “I have no need for it- I/we have my own car” (61.9 percent). Another popular response was “Doesn’t go where I need to go.” (Table 23). Most respondents appear to be aware of Calaveras Transit and how to use it. This is a testament to a good marketing program. Other comments pertaining to why the community does not use public transit are listed in Appendix A.

Table 23: What has prevented you or your household members from using transit service (or using it more)?	
"Have no need for it- I/we have own car(s)	61.9%
"Doesn't go where I need to go"	28.5%
"Think I've seen it, but don't know how to use it"	5.2%
"Did not know about it"	4.5%
	<u>100.0%</u>

SUMMARY OF DEMAND FOR CALAVERAS INTERCITY TRANSIT SERVICES

A variety of sources of demand for intercity transit service have been analyzed using multiple methods. Demand from many of these sources overlap but provide a good starting point from which to estimate ridership on specific intercity transit alternatives. The Calaveras County Travel Demand Model, Census Journey to Work data, and discussions with human service agencies indicate intercity transit service to the Central Valley, mainly Stockton, would be most productive. However, the community survey indicated that Sonora and Jackson are also popular as destinations. The community survey revealed that shopping is the primary trip purpose for intercity travel, followed by medical appointments. This was true even among respondents with no vehicle available. A large portion of respondents do not access the greater intercity transportation network. Of those that do, they are more likely to go to Sacramento for the airport or Amtrak, while Greyhound users are more likely to go to Stockton. Given survey responses, a low transit mode split should be assumed, even among those 65 and older. The transit alternatives should also take into account an aging population. It is likely that fewer persons over 65 will be able to drive on their own to the intercity destinations over the next five years.

This page intentionally left blank.

The basis for any transit plan is the development of an effective and appropriate service strategy. The types of service provided, their schedules and routes, and the quality of service can effectively determine the success or failure of a transit organization.

Following an examination of the existing conditions of transit service and potential needs / demand for intercity service, a number of service alternatives have been developed to meet these needs, and are evaluated and presented in this chapter. The service alternatives are specifically intended to present multiple options and intercity destinations, with varying levels of financial impacts to Calaveras Transit. Each service alternative is described, including operating characteristics and financial characteristics. Figure 15 and Table 24 present an overview of all the intercity transit service alternatives.

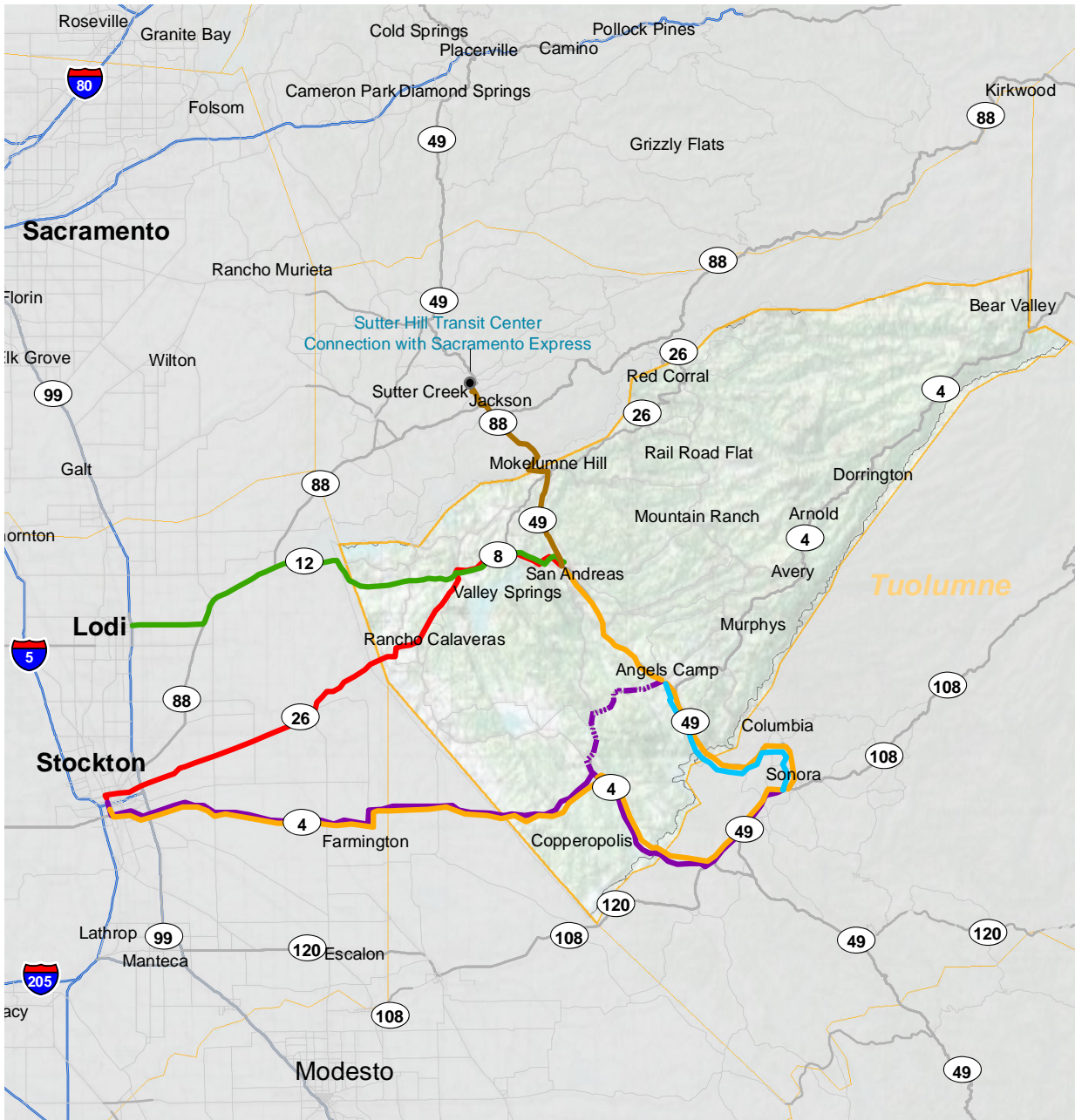
FUNDING

The FTA 5311(f) grant program will finance just over 50 percent of operating costs for an eligible rural intercity transit service. In FY 2013, Transportation Development Credits (Toll Credits) could be used as the local match for the FTA grant program. In essence, intercity projects that meet the 5311(f) criteria could potentially be entirely funded by a combination of these two funding sources (along with passenger revenues). Toll Credits represent credits for the amount of revenue received in tolls for the state. According to Caltrans staff, this funding source should be available as the local match for FTA 5311(f) projects at least for the foreseeable future. However, it should not be considered as a guaranteed source of revenue.

Another program to consider, as a rural intercity transit provider, is the Greyhound Rural Feeder Service Program. Greyhound has a strong interest in interlining with rural intercity transit services so as to expand connections to their own national intercity bus network. Important elements of interlining with Greyhound are the ability for the operators to sell each other's tickets, check luggage and cross market. By providing a more seamless connection to Greyhound in urban areas, ridership on the rural transit service can potentially be increased. To be completely interlined, the rural feeder service must operate at least 5 days a week. It should be noted that a complete interline with Greyhound would require the rural operator to be subject to vehicle safety standards and insurance requirement of the Federal Motor Carrier Safety Administration (FMCSA). If the rural feeder matches well with Greyhound needs, Greyhound may fund the local match portion of the FTA 5311(f) grant.

The primary focus of this study is to provide intercity transit service connections to Amtrak (rail or Thruway bus service), Greyhound, and scheduled passenger air service which qualify for FTA 5311(f) funding. However, Calaveras County out-of-county transportation needs extend beyond connections to the intercity bus/rail network. The alternatives discussed below address a variety of out-of-county transportation needs and are identified as FTA 5311(f) fundable and non FTA 5311(f) fundable. Based upon the geography of the region as well as public input, this discussion focuses on service to the following intercity connections: Stockton, Lodi, Sutter Hill (for through connection to Sacramento), and Sonora.

Figure 15 Calaveras Intercity Transit Service Alternatives



- San Andreas - Sonora - Copperopolis - Stockton Intercity
- Additional Copperopolis Runs for Sonora - Stockton Inter City
- Direct Service to Sutter Hill
- Sonora - Copperopolis - Stockton
- Lodi Intercity
- Stockton Intercity
- Direct to Sonora



0 1.53 6 9 12 Miles



TABLE 24: Calaveras Transit Intercity Service Alternatives

	Daily Service Quantities				Annual Service Quantities				Ridership (One-way Passenger Trips)		Annual Operating Subsidy	
	In-Service Vehicle-Hours	Driver Deadhead Hours	In-Service Vehicle-Miles	Days per Year	In-Service Vehicle-Hours	Driver Deadhead Hours	In-Service Vehicle-Miles	Annual Operating Cost ⁽¹⁾	Daily	Annual		
												Annual Farebox Revenue
Stockton												
Stockton Intercity Combo: Morning/Evening Express Only - 5 Days a Week	4.56	0.22	177	255	1,163	56	45,247	\$103,100	38.0	9,700	\$34,600	\$68,500
Stockton Intercity Combo: Morning and Afternoon - 5 Days a Week	5.36	0.22	197	255	1,368	56	50,215	\$116,800	35.7	9,100	\$40,300	\$76,500
Commuter	4.63	0.15	182	255	1,182	38	46,471	\$104,800	29.0	7,400	\$29,600	\$75,200
Stockton/Lodi - NEMT Service	8.32	0.5	100	52	433	26	5,200	\$22,400	15.4	800	\$8,000	\$14,400
Lodi												
Lodi Intercity/Commuter Service	4.67	0.29	166	255	1,190	75	42,330	\$100,600	21.6	5,500	\$22,000	\$78,600
Sacramento/Sutter Hill/Jackson												
Advertised Direct Service Sutter Hill Transit Center - Once a Day	0.17	0.00	8	255	43	0	2,040	\$4,200	0.8	200	\$230	\$3,970
One Additional Run to Sutter Hill Transit Center to Allow for Round Trip to Sacramento	1.50	0.07	40.4	255	383	19	10,302	\$27,600	3.5	900	\$1,041	\$26,559
Sonora												
Angels Camp to Sonora - 2 Round Trips	3.00	1	74	255	765	255	18,870	\$59,900	11.4	2,900	\$4,350	\$55,550
Joint TCT Intercity Service to Stockton												
Primarily operated by TCT, Transfer in Copperopolis	8.33	0.44	324.80	255	2,125	113	82,824	\$153,900	19.6	5,000	\$27,800	\$126,100
TCT	6.33	0.29	252	255	1,615	75	64,260	\$110,000	17.6	4,500	\$27,000	\$83,000
Calaveras Transit Additional Runs from San Andreas to Copperopolis	2.0	0.15	72.8	255	510	38	18,564	\$43,900	2.0	500	\$800	\$43,100
San Andreas - Angels Camp - Sonora - Stockton Operated by Calaveras Transit	10.03	0.29	374.00	255	2,559	75	95,370	\$219,500	29.02	7,400	\$31,380	\$188,120

Note 1: Applied FY 2013-14 cost model

STOCKTON

Demographic data, travel pattern data, discussions with stakeholders and survey input have indicated that there is demand for intercity transit service to Stockton from Calaveras County.

Intercity Combination – FTA 5311(f) eligible

The Calaveras County Travel Demand Model indicates that the greatest number of internal to external trips is between Valley Springs and SR 26 to San Joaquin County, the direct route to Stockton. This is followed closely by trips between Valley Springs and SR 12 to Lodi. Both urban centers are roughly 30 miles from Valley Springs. The Valley Springs region is the largest population center in Calaveras County. Stockton includes a larger variety of intercity transit services and major activity centers than Lodi and therefore a greater potential for ridership. However, intercity service to Lodi is also evaluated in the next section.

Stakeholder and survey input indicated a need to serve colleges, shopping and medical destinations in addition to providing connections to intercity transit services in Stockton. Therefore, this alternative explores the possibility of an intercity transit service to Stockton which serves as many out-of-county transit needs as possible, while meeting the objectives of the FTA 5311(f) intercity program. An intercity bus service should have limited stops but can include three stops at medical facilities or shopping centers. This *Stockton Intercity Combo* could serve the following destinations:

- ◆ Amtrak
- ◆ Altamont Corridor Express (ACE) train to San Jose (the Cal State Stanislaus Stockton Campus is located one-half mile away)
- ◆ Greyhound Bus Terminal
- ◆ San Joaquin Downtown Transfer Station
- ◆ San Joaquin RTD Mall Transfer Station (located across the street from Delta College)
- ◆ Kaiser Dameron Hospital
- ◆ Hammer Lane/West Lane (close to Kaiser Medical Offices and Costco)

At a minimum, the Stockton Intercity Combo would provide two round trips, timed to connect with as many intercity transit services as feasible. Table 25 presents approximate departure/arrival times in Stockton of Amtrak rail service, Greyhound and ACE. There are two Amtrak stations in Stockton. The station located at 735 South San Joaquin Street offers baggage service, ticket office, restrooms and an enclosed waiting area. Amtrak also stops at the ACE terminal on 949 East Channel Street in downtown (Downtown); however no services are available except for the Quick-Trak Ticketing Kiosk. Transfers are not required on these intercity services to reach the destinations listed in Table 25.

A review of Table 25 shows that the greatest number of intercity transit connections could be provided by a morning run arriving around 9:00 AM. Unfortunately this eliminates the possibility of connecting with the last ACE train departure to San Jose at 7:05 AM. Although there are a fair number of Calaveras County residents who commute to San Jose (467), it is likely that many of these residents are telecommuting a large portion of the week. Additionally, arriving in Stockton before 7:00 AM would require a 5:50 AM departure from San Andreas. This would limit the number of Calaveras residents willing to use this service. Although Amtrak does not provide a direct connection to San Jose, Amtrak provides connection to BART in Richmond to other Bay

Area destinations. A plausible second roundtrip would reach Stockton around 3:00 PM or 5:45 PM, in order to provide good connections with inbound and outbound intercity services.

Table 25: Existing Stockton Intercity Service Times

Legend	
ACE	Altamont Commuter Express Rail Service
Greyhound	Greyhound Bus Service
Amtrak-DT	Amtrak Rail Service -- Downtown Station
Amtrak-SJS	Amtrak Rail Service -- San Joaquin Street Station

Half Hour Beginning	Service To				Service From			
	Oakland / San Francisco	San Jose	Sacramento	Bakersfield / LA	Oakland / San Francisco	San Jose	Sacramento	Bakersfield / LA
7:00 AM		ACE						
7:30 AM				Amtrak-DT			Amtrak-DT	
8:00 AM								
8:30 AM								
9:00 AM	Amtrak-SJS Greyhound	Greyhound		Amtrak-SJS Greyhound	Amtrak-SJS Greyhound		Greyhound	Amtrak-SJS
9:30 AM								Greyhound
10:00 AM	Greyhound		Greyhound					
10:30 AM								
11:00 AM			Amtrak-DT					Amtrak-DT
11:30 AM				Amtrak-SJS	Amtrak-SJS			
12:00 PM				Greyhound	Greyhound		Greyhound	
12:30 PM								
1:00 PM								
1:30 PM								
2:00 PM	Amtrak-SJS							Amtrak-SJS
2:30 PM								
3:00 PM				Amtrak-SJS Greyhound	Amtrak-SJS Greyhound		Greyhound	
3:30 PM			Greyhound					
4:00 PM								
4:30 PM	Greyhound	Greyhound	Greyhound					Greyhound
5:00 PM								
5:30 PM	Amtrak-SJS			Amtrak-DT		ACE	Amtrak-DT	Amtrak-SJS
6:00 PM								
6:30 PM						ACE		
7:00 PM			Greyhound					
7:30 PM				Amtrak-SJS	Greyhound		Greyhound	

FTA defines a meaningful connection to intercity transit services as within a two hour window of the intercity arrival/departure. The following connections could be made within that two hour window:

Morning Run

- ◆ Amtrak rail service to Oakland and Bakersfield
- ◆ Amtrak rail service from Bakersfield
- ◆ Greyhound service to Oakland, San Jose, Bakersfield and other points both south and north
- ◆ Greyhound service from Sacramento

Afternoon Run

- ◆ Amtrak rail service to Bakersfield
- ◆ Amtrak rail service from Oakland
- ◆ Greyhound service to Sacramento
- ◆ Greyhound service from Sacramento, Bakersfield and points south

Evening Run

- ◆ Amtrak rail service to Bakersfield
- ◆ Amtrak rail service from Sacramento and Bakersfield
- ◆ Greyhound service to Sacramento
- ◆ Greyhound service from Bakersfield and points south
- ◆ ACE Train from San Jose

The Stockton Intercity Combo Route would also stop at either the San Joaquin RTD Downtown Transit Center or at the RTD stop at the ACE train station to allow for travel around the Stockton Metropolitan area.

A variety of schedule combinations were reviewed as part of this alternative (as shown in Table 26). The morning and evening express routes were designed to only serve the intercity connections listed above as well as transfer to San Joaquin RTD services, opening the potential for limited commuting. The slightly longer morning and afternoon schedules would allow passengers to directly access Delta College, the Sherwood Mall, Kaiser Hospital (on request), Kaiser Medical Offices on Hammer Lane, and Costco. All runs could be timed to make several Amtrak and Greyhound connections, making all runs eligible for 5311(f) funding. A variety of frequencies for each schedule option could be examined. In Table 26, the following combinations are reviewed: morning and evening express route service five days a week, and morning and afternoon longer route service five days a week.

Ridership Estimates

The *TCRP Report 147: Toolkit for Estimating Demand for Rural Intercity Bus Services* Trip Rate Model estimated that ridership from a rural intercity route would generate around 2,200 one-way passenger trips per year. The Toolkit also includes a regression model. Applying the regression model, if the proposed Stockton service were to be operated by a recognized

“Intercity Bus Carrier”, the transit demand would increase to around 5,000 annual trips. This additional ridership is because a seamless connection with Greyhound, such as interlining ticketing, would increase ridership. Neither the regression model nor the trip rate model are based on service frequency, but rather represent a general base case demand estimate for intercity transit services.

Table 26: Stockton Intercity Schedule Alternatives

	Commuter Schedule		Combo: Morning/Evening		Combo: Morning/Afternoon	
Government Center (San Andreas)	6:39 AM	4:09 PM	7:42 AM	4:43 PM	7:42 AM	1:52 PM
SR 12/26 (Toyon)	6:48 AM	4:18 PM	7:51 AM	4:52 PM	7:51 AM	2:01 PM
Valley Springs (SR 12/26)	6:55 AM	4:25 PM	7:58 AM	4:59 PM	7:58 AM	2:08 PM
Rancho Calaveras (26 and Baldwin)	7:01 AM	4:31 PM	8:04 AM	5:05 PM	8:04 AM	2:14 PM
Linden	7:20 AM	4:50 PM	8:23 AM	5:24 PM	8:23 AM	2:33 PM
RTD Downtown Transit Center	7:45 AM	5:15 PM	8:42 AM	--	8:42 AM	2:52 PM
Amtrak Downtown Station/ACE Station	7:52 AM	5:22 PM	--	5:45 PM	--	--
Amtrak (San Joaquin St. Station)	--	--	8:45 AM	5:55 PM	8:45 AM	2:55 PM
Greyhound	--	--	8:47 AM	--	8:47 AM	3:10 PM
Kaiser Dameron Hospital (Request)	--	--	--	--	8:51 AM	3:14 PM
RTD Mall Transfer Station/Delta College	--	--	--	--	9:00 AM	3:23 PM
Hammer/West Lane (Kaiser Medical Offices)	--	--	--	--	9:08 AM	3:31 PM
Linden	8:17 AM	5:47 PM	9:12 AM	6:16 PM	9:31 AM	3:54 PM
Rancho Calaveras (26 and Baldwin)	8:36 AM	6:06 PM	9:35 AM	6:39 PM	9:55 AM	4:18 PM
Valley Springs (SR 12/26)	8:42 AM	6:12 PM	9:41 AM	6:45 PM	10:01 AM	4:24 PM
SR 12/26 (Toyon)	8:49 AM	6:19 PM	9:48 AM	6:52 PM	10:08 AM	4:31 PM
Government Center	8:58 AM	6:28 PM	9:57 AM	7:01 PM	10:17 AM	4:40 PM

Table 9 compared ridership for several peer intercity transit services. Annual ridership varied from 773 one-way passenger-trips on Sage Stage to 6,400 one-way passenger-trips on Redwood Coast Transit Authority (RCTA). Sage Stage operates one round trip to Reno, three days a week. The bus lays over in Reno for two hours. The RCTA intercity route operates two round trips per day five days a week, with no layover. Applying the average peer intercity transit operator ridership per capita rate of 0.13 trips per person to Calaveras County produced an intercity demand estimate of 6,000 passenger-trips.

In order to produce ridership estimates for the Stockton Intercity Combo route, the average of the three estimates was used as the base case demand for purely intercity transit service or about 4,500 annual one-way passenger trips. A number of factors should be considered which increase the demand for this alternative.

- ◆ **Commuter Demand** – The morning and evening express route schedules would allow commuters living in Valley Springs or San Andreas to commute to a 9:00 AM to 6:00 PM job, **if** they worked within walking distance of downtown **or** were willing to transfer to RTD. As this intercity route would be convenient to fewer commuters than the Stockton Commuter Route discussed above, the mode split was reduced to 0.005 percent. This equates to roughly 875 additional one-way passenger-trips or 1 to 2 people commuting regularly.
- ◆ **College Student Demand** – Throughout the study process, transit service to Delta College has been identified as an out-of-county transit need. In 2008, roughly 40 percent of Calaveras Transit ridership stemmed from students. The younger generation is also more likely to not have a vehicle available and be more open to the idea of public transit. The non-express routes or the longer versions of the Stockton Intercity Combo route stop at the

San Joaquin RTP Mall Transfer Station which is directly across the street from Delta Community College. The Morning/Afternoon schedule combination would allow students to take classes from roughly 9:00 AM to 3:00 PM. It should also be noted that if the express routes connect with RTD at the Downtown Transit Center, students could connect with the frequent (every 10 to 15 minutes) RTD Metro Express bus to travel to Delta College in 15 minutes. The morning/evening express schedule would also allow students to take a full day of classes. Therefore, there would be some college student demand for the express Stockton Intercity Combo route as well.

Delta College staff indicated that roughly 327 Delta College Students travel from the foothill counties. Calaveras County is the closest foothill county to Delta College while Amador County is another 15 minute or so drive away. It was assumed that roughly 75 percent of Delta College students from the foothill counties travel from Calaveras County. Surveys at major institutions such as Seattle Community College and Portland State University have shown that anywhere from 29 to 44 percent of students use public transit as their primary form of transportation to school. These major urban areas offer a much more frequent level of transit service and parking at the school is cost prohibitive. Nevertheless, it can be assumed that the transit mode split for Delta College students living in Calaveras County would be greater than the average for Calaveras County and at least three percent. Therefore with this rather conservative estimate, additional ridership resulting from college students is expected to be approximately 3,000 annual passenger trips under the longer schedules and roughly half that under the express route schedules.

- ◆ **Medical/Shopping Demand** - According to the community surveys, the primary reason for travel to Stockton for Calaveras Transit existing riders is medical appointments and for non-riders it is shopping, followed by medical appointments. Demand for medical appointment trips to Stockton was estimated based on input from human service agencies. Ideally, a Calaveras County resident travelling to Stockton for a medical appointment and perhaps some shopping would not want to spend more than six hours in Stockton, particularly elderly or individuals with disabilities. As shown in Table 26, the morning and afternoon runs require a six hour stay in Stockton while a morning and evening run would require a nine hour stay in Stockton. Therefore, less transit demand for medical/shopping is assumed for the morning/evening combination (200 annual passenger trips or less than one person every other day) while the full medical/shopping demand is assumed for the morning/afternoon alternative combination (550 annual one-way passenger trips or just over one person a day). As shopping was cited in the community surveys as the primary reason for travel to Stockton, it was also assumed that the longer schedule would attract at least two people per week to take public transit to Stockton to go shopping.
- ◆ **Increased Ridership between Rancho Calaveras and San Andreas** – The Stockton Intercity Combo Alternative would also have the indirect effect of increased service between Rancho Calaveras and San Andreas. After a review of average daily boardings on Route 1A East and West, it is estimated that two additional round trips would increase ridership by roughly 1,450 annual one-way passenger trips per year, depending on how well the new intercity route supplements the existing schedule.

Potential Fares

The peer intercity transit services reviewed in Chapter 3 charge a significant fare as compared to local transit services. As an example, a one-way trip from Lone Pine to Reno (a distance of 240 miles) on Eastern Sierra Transit Authority is \$59 for a general public passenger. It should be noted that RCTA does not offer discounted fares for their intercity service. The peer average intercity fare per mile is \$0.22. The distance from San Andreas to Stockton is around 43 miles. Applying the peer average intercity fare per mile to the Stockton service equates to \$10 per one-way trip. Calaveras County is not quite as remote as Inyo/Mono or Del Norte County nor is the intercity route discussed here quite as far. Therefore, charging a fare of closer to \$.10 per mile is more reasonable and less cost prohibitive. In these alternatives, no discounts will be available but monthly passes or multi trip punch cards should be offered. Presumably students and commuters would purchase a punch card or monthly pass at an average fare paid of around \$4.00, or a 20 percent discount.

Combined Alternatives

Table 26 combines the schedule options discussed above into two scenarios:

- ◆ Morning and Evening Express Runs Only – This option is anticipated to cost \$103,100 and carry 7,200 annual passenger trips or an average of 28.2 trips per day. Annual passenger fare revenues assume a full fare of \$5 per one-way trip for intercity demand and medical/shopping demand. An average fare of \$4 per one-way trip is assumed for commuter and student demand. The additional trips generated from increased service between Rancho Calaveras and San Andreas are assumed to generate the existing average fare for Route 1. This equates to annual farebox revenue of \$31,100 and an operating subsidy of \$72,000.
- ◆ Morning and Afternoon Long Runs – Ridership estimates total to slightly greater than the other combined alternative at, 8,000 annual one-way passenger trips. The cost is also the greatest at \$116,800. Operating subsidy is estimated at \$83,500.

These alternatives could potentially be paid for with 5311(f) and Transportation Development Credits (discussed in the funding section). In order to be eligible for FTA 5311(f) funding the transit vehicle must have the capacity to carry luggage. Fares charged for these alternatives would allow for a farebox ratio of at least 20 percent. Therefore, this alternative meets CCOG's financial feasibility criteria under the reasonable to meet definition of an unmet transit need.

Intercity Commuter (FTA 5311(f))

According to Census data, roughly 1,354 Calaveras County residents, or 6.8 percent of employed residents, commute to Stockton. The Calaveras Travel Demand Model indicated that the most common origin/destination pair is between Valley Springs via SR 26 to Stockton. Mileage between the two communities is roughly 34 miles, for an approximate travel time of 45 minutes. The option of avoiding driving this distance each work day makes a transit service an attractive option to commuters.

There are several challenges associated with designing an intercity route to Stockton around commuter needs. Unlike state government offices in downtown Sacramento, where other commuter routes from Placer and El Dorado County are quite successful, employment opportunities in Stockton are not all in one central location. Experience with commuter services indicates that significant ridership is only generated if the commuter transit service can provide service either directly to the commuter's place of work, or within a convenient walk. (In other words, few commuters are willing to use a commute transit service if it also requires transfer to a local bus to complete their trip to work.) Therefore, it can be assumed that only commuters who work within a couple blocks of the transit route would consider taking public transit. The US Census Longitudinal Employer – Household Dynamics (LEHD) data shows that roughly 343 Calaveras County residents work in Census Tracts 1, 3, and 7 of San Joaquin County. These Census Tracts immediately surround the San Joaquin RTD Downtown Transit Center in Stockton.

A potential commuter service to Stockton would leave the Government Center in San Andreas at roughly 6:40 AM, stop in Valley Springs and Rancho Calaveras around 7:00 AM and arrive at the San Joaquin RTD Downtown Transit Center at 7:45 AM. In order to maximize the number of employment locations within a two to three block radius of the bus route, the Stockton Commuter service could operate a three mile loop around the transit center, potentially serving City Hall, Kaiser Hospital, and Cal State Stanislaus Stockton Campus. In the afternoon, service would depart San Andreas at 4:09 PM, serve downtown Stockton around 5:15 PM, bringing commuters back to Valley Springs by 6:12 PM and to San Andreas by 6:28 PM.

Applying the FY 2013-14 Calaveras Transit cost model, the Stockton Commuter Service would cost \$104,800. Applying the TCRP B-36 transit demand forecasting model (assuming a two percent mode split) to the 343 employees potentially within a few blocks of the transit route equates to roughly 3,500 annual one-way passenger-trips. This service would also accommodate some intercity travelers, estimated to be around 2,200 per year. Ridership demand can also be increased to account for some students attending Delta College and the increase in service between Rancho Calaveras and San Andreas. In total, 6,800 annual one-way passenger trips are assumed.

Other commuter services provided by El Dorado Transit and Amador Transit charge a fare of around \$5.00 per one-way trip. Discounts are available to seniors, persons with disabilities and for monthly pass purchases. Assuming an average fare of \$4.00 per one-way trip (accounting for discounted passengers using a monthly pass providing a 20% discount from the one-way fare), farebox revenues would total roughly \$27,200. The resulting annual subsidy required for a Stockton Commuter Service would be \$77,600. As this alternative focuses on employment centers and no intercity transit connections are made, the Stockton Commuter Service would not be eligible for FTA 5311(f) intercity grant funding.

Non-Emergency Medical Transportation (NEMT) to Stockton/Lodi – Non-FTA 5311(f)

Another transit service alternative which would more specifically meet the out-of-county transportation needs of Calaveras County human service agency clients is Non-Emergency Medical Transportation (NEMT). Most human service agencies/organizations have clients with medical needs in Stockton, Lodi, Sonora, Jackson, Sacramento, Modesto, or the Bay Area. Many of these clients may be unable to use a fixed route transit service and require curb to curb transit service. Table 8 summarizes potential intercity demand generated by Calaveras County

human service agencies. As shown, there is not one particular location or city to which all agencies require transportation. Some clients require transportation to the dentist in Lodi, work in Jackson or the Veterans Administration clinic in Stockton. Therefore a reasonable service plan for an out-of-county NEMT service for Calaveras Transit is to serve either Stockton or Lodi depending on reservation requests. Jackson is already served by Calaveras Transit and Sonora is discussed in a separate section of this memo.

El Dorado Transit operates a NEMT shared ride service from Placerville to Sacramento two days a week, called the SAC-MED service. Reservations are required four days in advance and medical appointments must be between the hours of 10:00 AM and 2:00 PM. Service begins at 8:00 AM when passengers are picked up from one of five Park and Ride lots or El Dorado Transit bus stops. Passengers requiring transportation to the pick-up points must arrange this separately with the El Dorado Transit DAR service. Passengers are dropped off/picked up at their medical appointment and returned to the Park and Ride lots by 6:10 PM. The one-way fare for the SAC-MED service is \$10.00.

A similar type of service could be implemented in Calaveras County. One van could operate once a week to either Stockton or Lodi, serving each location roughly twice a month. Reservations should be required at least 4 days in advance. A clear no-show or late cancellation policy should be implemented so as to prevent abuse of the system. The van could pick up passengers in the San Andreas, Valley Springs and Rancho Calaveras areas. Service hours should be roughly from 8:00 AM to 5:00 PM and coordinated with the Calaveras Transit fixed route schedule so as to allow for transfers. In order to minimize the travel day, passengers could be required to make appointments between 10:00 AM and 2:00 PM.

Approximate annual operating cost of the NEMT service would be \$22,400. Ridership estimates took into account the following: potential human service agency demand for transit service to Lodi and Stockton presented in Table 8. Roughly 800 one-way passenger trips or 15.4 trips per service day could be expected. As Sacramento is a similar distance from Placerville as Lodi and Stockton are from San Andreas, a one-way fare of \$10.00 would be reasonable. This equates to an operating subsidy of \$14,400.

This alternative would not be eligible for FTA 5311(f) funding and would likely require funding through currently used Calaveras Transit sources in addition to other FTA grant funding sources. As out-of-county NEMT service would increase mobility for elderly residents and persons with disabilities, this alternative could be explored further in the Coordinated Public Transit Human Services Transportation Plan Update.

LODI INTERCITY SERVICE – FTA 5311(f)

Lodi Station located at 24 S. Sacramento Street is the terminal for Greyhound, Amtrak and the Lodi Grapevine. Baggage service is not available for Amtrak at this location. Table 27 displays connections to intercity transit services in Lodi. As shown, there are fewer potential connections than Stockton during the morning hours with both Greyhound and Amtrak. Moreover, Amtrak connections require a transfer to a Thruway bus or the Capital Corridor Rail line in Sacramento, and the Greyhound options also require a transfer in Sacramento to get to the Bay Area. In the afternoon/evening, there are no connections with Greyhound. Given more frequent and more convenient (less transfers, shorter travel time) connections in Stockton, the fact that service is also available to San Jose and the South Bay area, as well as based on input from stakeholders,

intercity service to Stockton would be more successful in serving intercity passengers than a Lodi Intercity Service. Nevertheless, a brief overview of a potential Lodi service is outlined below.

Table 27: Existing Lodi Intercity Service Times

Legend	
Greyhound	Greyhound Bus Service
Thruway	Amtrak Thruway Bus Service -- Requires Transfer to Train
Amtrak-Rail	Amtrak Rail Service

Half Hour Beginning	Service to			Service From		
	Oakland / San Francisco	Sacramento	Bakersfield / LA	Oakland / San Francisco	Sacramento	Bakersfield / LA
7:00 AM			Amtrak-Rail			
7:30 AM						
8:00 AM	Thruway		Thruway			
8:30 AM			Greyhound	Greyhound	Greyhound	
9:00 AM						
9:30 AM	Thruway					Thruway
10:00 AM						
10:30 AM	Greyhound	Greyhound		Greyhound	Greyhound	Greyhound
11:00 AM			Thruway			
11:30 AM		Amtrak-Rail Greyhound				Amtrak-Rail Greyhound
12:00 PM						
12:30 PM						
1:00 PM						
1:30 PM						
2:00 PM			Thruway			
2:30 PM						
3:00 PM						Thruway
3:30 PM						
4:00 PM						
4:30 PM						
5:00 PM						
5:30 PM			Amtrak-Rail	Amtrak-Rail	Thruway	
6:00 PM						
6:30 PM						
7:00 PM						
7:30 PM						

Note: Excludes rail trips that require a transfer to another train in Sacramento or Stockton

Prior to 2008, Calaveras Transit operated an intercity transit service to Lodi, funded in part by FTA 5311(f) funds. Four round trips were operated five days a week between San Andreas and Lodi. The schedule was designed to accommodate commuters living in Lodi and working in San Andreas and also supplemented service between Valley Springs and San Andreas. Annual ridership reached as high as 7,543 one-way passenger trips in FY 2007 – 08. On board surveys conducted in 2008 indicated that the primary trip pattern was from Lodi Station to Valley Springs and San Andreas, and not always during commute periods. Operating costs for the Lodi service were \$157,760 in 2008. The high cost and uncertainty of continued 5311(f) funding were some of the reasons the route was eliminated in 2008.

A potential new reduced service plan for a Lodi Intercity Route which meets the needs of Calaveras County residents is to operate two round trips per day, five days per week. As roughly 525 Calaveras County residents commute to Lodi while 89 Lodi residents commute to Calaveras County, there appears to be greater demand for commute service to (rather than from) Lodi. Therefore, the schedule should include an arrival at Lodi Station around 7:45 AM and departure around 5:15 PM. The Lodi Intercity Route could operate a three mile loop after serving Lodi Station to more directly access a greater number of job sites.

Using an elasticity analysis, ridership was estimated by reducing FY 2007-08 ridership to reflect the elimination of mid-day trips. Although the service will be designed to serve a greater number of commuters than the 2008 service, commuters may still find the private vehicle more attractive as Lodi also does not have the high concentration of employers as downtown Sacramento.

As shown in Table 1, the Lodi Intercity Service would cost \$100,600, carry 5,500 annual one-way passenger trips and require an operating subsidy of \$78,600, if an average commuter fare of \$4.00 is assumed. As this alternative makes meaningful connections to intercity transit services, it would be eligible for FTA 5311(f) funding.

IMPROVE CONNECTIONS TO JACKSON, SUTTER HILL AND SACRAMENTO

Input through the public workshops and community phone surveys indicated that an important out-of-county transit need is increased service to Jackson. This is particularly true for human service agencies. Jackson also ranked highest as the out-of-county destination most likely for community survey respondents to travel to via public transit. Currently, Calaveras Transit serves the Raley's in Jackson three times a day and deviations can be requested to the Sutter Hill Transit Center (although this is not advertised). Although increasing service to Jackson is an out-of-county transit need, it is not a new service nor could it be funded with FTA 5311(f) grants. Increasing existing services may also require schedule adjustments to the overall Calaveras Transit route system, and therefore is an alternative that should be explored further as part of the upcoming Short Range Transit Plan Update. However, improving connections to the Sutter Hill Transit Center and the Sacramento Express Route is relevant to an intercity transit discussion.

The only existing connection to the national intercity bus network for Calaveras County residents on public transit is via Route 3 to the Amador Transit Sacramento Express service. Although it is possible to reach Greyhound, Amtrak or the Sacramento International Airport, it is

not a quick trip and does not allow for a return trip on the same day. To access the Sacramento International Airport, Calaveras County residents must take Calaveras Transit Route 3 at 2:50 PM from San Andreas and request a deviation to the Sutter Hill Transit Center. From there, the Amador Transit Sacramento Express route departs at 3:30 PM to downtown Sacramento. A short walk from the Sacramento Express stop at 14th and L St, the passenger can board Yolo Bus at 5:05 PM for arrival at the airport around 5:30 PM. Total trip time on public transit is two hours and 40 minutes versus roughly 1.5 hours by private vehicle. San Andreas residents wishing to access Amtrak have a shorter trip, as the 3rd and J St. Sacramento Express bus stop is only a couple blocks from the Amtrak station (or transfer to Light Rail). Sacramento Express passengers could also alight at 7th and L St and walk a couple blocks to the 8th and K Sacramento RT Light Rail Station to arrive at the Greyhound Terminal by 5:30 PM.

The community surveys indicated that when Calaveras residents travel to Sacramento it is mainly for shopping, followed by medical and the airport. Additionally, a smaller percentage of respondents stated that they do their shopping in Sacramento as opposed to Sonora, Jackson, or even Stockton. Therefore, there is expected to be less demand for service to Sacramento than Stockton. Presumably the major advantage of a connection to Sacramento is to access the Sacramento International Airport.

The first improvement for Sacramento intercity connections could be to provide direct service to the Sutter Hill Transit Center, thereby not requiring a transfer to the Jackson-Sutter Creek Shuttle or a deviation request. The stop could remain a request only stop but should be advertised as such in the schedule. The Sutter Hill Transit Center is roughly four miles or 10 minutes beyond Raley's in Jackson. The current printed schedule only allows for a five minute layover at Raley's. Over a two month period, Calaveras Transit received roughly two requests a week to make a deviation to Sutter Hill. If direct service were provided to the Sutter Hill Transit Center once a day, an extra 10 minutes should be built into the schedule so as to maintain on-time performance. This would cost an additional \$4,200. It is estimated that an additional 200 passenger trips would result, based on existing Sutter Hill Transit Center deviation requests.

Amador Transit is considering applying for FTA 5311(f) grant funds to operate additional run(s) to Sacramento. As part of the Amador Transit Short-Range Transit Development Plan Update, alternatives will be reviewed to add one or two mid-day runs. Demand for this service expansion could be increased if Calaveras County residents have timed connections with the Sacramento Express. Therefore, the need for additional runs to the Sutter Hill Transit Center that will have timed connections with the potential Sacramento Express mid-day runs are reviewed below. Increased service to Sutter Hill would improve out-of-county connections for Calaveras residents and strengthen Amador Transit's 5311(f) application.

Two potential mid-day runs for the Sacramento Express could depart the Sutter Hill Transit Center at 9:00 AM and Noon. Return trips would arrive at the Sutter Hill Transit Center at around Noon and 3:00 PM. With this schedule, Calaveras Transit does not need to add an extra run for Calaveras residents to make a one day round trip to Sacramento for shopping/medical with three hours to spend in Sacramento. If AT added only **either** the 9:00 or Noon run, Calaveras Transit would need to operate a fourth run to Jackson/Sutter Hill Transit Center to allow for a round trip connection to Sacramento. Unfortunately the schedule options under this alternative would not be extremely attractive for Calaveras residents. For example, if Calaveras Transit connected with the first Sacramento Express run at 6:15 AM, it would require a

departure from San Andreas at around 5:25 AM. If a direct connection with the last Sacramento Express run at 6:30 PM were added, San Andreas residents would not get home until after 7:15 PM. It is more likely that Calaveras County residents would access Amtrak, Greyhound and medical needs in Stockton or Lodi rather than Sacramento. The early morning or late evening runs to Jackson/Sutter Hill would likely have very low ridership (900 annual one-way passenger trips) and cost \$27,600. The primary draw to Sacramento, particularly for those without a private vehicle, is the airport, which does not require a round trip in one day.

Therefore, the best strategies for Calaveras Transit to improve connections to Sacramento is to coordinate with Amador Transit to ensure that additional Sacramento Express runs are timed to connect with existing Route 3 runs and provide service directly to the Sutter Hill Transit Center. Calaveras Transit should also collaborate with AT for their FTA 5311(f) grant application so as to strengthen the case for intercity transit funding between Jackson/Sutter Hill and Sacramento.

DIRECT SERVICE TO SONORA – NON FTA 5311(f)

During the Calaveras community phone survey, respondents were asked where they would ride public transit. Jackson and Sonora received the greatest number of positive responses. Jackson is already served directly by Calaveras Transit, three times per day. Sonora was also cited as the top out-of-county destination for medical appointments. Though Sonora is not served directly, passengers can transfer to Tuolumne County Transit (TCT) at Columbia College to access Sonora. However, these transfers are inconvenient, require additional fare, and add in-vehicle travel time. Out-of county connections for Calaveras non-students could be improved with direct service to Sonora. Two round trips between Angels Camp and Sonora would cost on the order of \$59,900, if operated five days a week. Based on on-board survey data for non-students and ridership on Route 4 between Angels Camp and Columbia College, it is estimated that roughly 11.4 daily one-way passenger trips would result from two round-trip runs directly to Sonora. This alternative should be timed to connect with TCT at the Crossroads shopping center transfer point.

As no connections to Amtrak or Greyhound are possible in Sonora, this service would not be eligible for FTA 5311(f) funding. In this scenario, schedules could be adjusted to best meet the needs of Calaveras residents by alternating with existing runs between Angels Camp and Columbia College. For example, arrivals in Sonora at around: 8:30 AM and 12:30 PM or 11:30 and 3:30 PM. Further adjustment to the schedules or the possible extension of the existing Columbia College route to Sonora could be explored as part of the upcoming Short Range Transit Plan Update.

INTERCITY CONNECTIONS IN MODESTO

The general input gathered from stakeholders and telephone surveys conducted as part of the Yosemite Service Analysis for TCT is that typically only Calaveras and Tuolumne residents with access to a vehicle travel to Modesto. Their primary trip purpose is shopping, although many Calaveras phone survey respondents stated medical appointments as their trip purpose to Modesto. In general, most transit dependent residents would be better served by public transit service to Stockton, Lodi.

As for intercity transit service connections in Modesto, better intercity connections are possible through Stockton (as shown by a comparison of Tables 25 and 28). Through Stockton, more

direct connections can be made on Amtrak, as well as more connections with Greyhound and the ACE rail service. The total trip time on Amtrak to destinations west and south are similar from the two stations. For a Calaveras County resident living in San Andreas, the trip to an intercity destination would be longer if connecting in Modesto than if connection Stockton, particularly if the bus to Modesto was routed through Sonora to pick up Tuolumne County passengers. The travel time between San Andreas and Modesto is roughly 20 minutes longer than a trip between San Andreas and Stockton. Via Sonora, the trip is around 45 minutes longer. Perhaps a better rural intercity bus route that could jointly serve the needs of Tuolumne County and Calaveras County is a service from Sonora to Stockton (discussed below).

The *Yosemite Service Analysis Draft Report* prepared for the Tuolumne County Transportation Council briefly analyzed the potential for year-round intercity transit service between Sonora and Modesto. Although intercity service was not the focus of the plan, there is the future potential to for Sonora residents as well as Calaveras County residents to access services in Modesto via YARTS.

JOINT INTERCITY SERVICE WITH TUOLUMNE COUNTY TRANSIT – FTA 5311(F)

Similar to Calaveras County, Tuolumne County residents have out-of-county public transit needs to intercity transit services and medical appointments in nearby urban areas. TCT does not provide public transit outside of the county. In the past, Sonora was served by Greyhound, but the route was discontinued several years ago. Discussions with Tuolumne County Transportation Council staff indicated a need for Tuolumne County residents to access services in Modesto. In the interest of maximizing resources between these two foothill counties, joint intercity service with Tuolumne County was reviewed.

As discussed above, travel times from San Andreas to Modesto would be quite lengthy and does not have significant advantages over intercity connections in Stockton. Travel time from Sonora to Stockton is only ten minutes longer than travel time from Sonora to Modesto and could be shortened with planned improvements to O'Byrnes Ferry Road associated with a new bridge over Lake Tulloch. As better intercity connections are available in Stockton and more advantages for Calaveras County residents, joint intercity service with TCT was considered for connections to Amtrak/Greyhound in Stockton. Two different scenarios were reviewed:

1. TCT operates intercity transit service from Sonora to Stockton via Copperopolis. Calaveras Transit would operate two additional roundtrips to Copperopolis to connect with the TCT intercity bus.
2. Calaveras Transit operates the intercity service from Angels Camp to Sonora to Copperopolis to Stockton.

TCT Provides Service, Calaveras Transit Provides Transfer in Copperopolis

As residents of Sonora and Tuolumne County are the most likely to benefit from this alternative, it makes sense for TCT to operate the service and for Calaveras Transit to provide a connection in Copperopolis. The two counties could jointly prepare the FTA 5311(f) grant application.

Table 28: Existing Modesto Intercity Service Times

Legend						
Greyhound	Greyhound Bus Service					
Thruway	Amtrak Thruway Bus Service -- Requires Transfer to Train					
Amtrak-Rail	Amtrak Rail Service					
Half Hour Beginning	Service to			Service From		
	Oakland / San Francisco	Sacramento	Bakersfield / LA	Oakland / San Francisco	Sacramento	Bakersfield / LA
7:00 AM						
7:30 AM						
8:00 AM	Rail	Thruway	Rail	Thruway	Rail	Rail
8:30 AM	Greyhound					Greyhound
9:00 AM		Greyhound				Greyhound
9:30 AM			Rail	Rail	Thruway	
10:00 AM			Greyhound		Greyhound	
10:30 AM	Thruway	Rail	Greyhound	Greyhound		Rail
11:00 AM						
11:30 AM						
12:00 PM			Rail	Rail	Thruway	
12:30 PM						
1:00 PM	Greyhound			Greyhound		Greyhound
1:30 PM	Rail	Thruway	Greyhound			Rail
2:00 PM						
2:30 PM						
3:00 PM						
3:30 PM			Rail	Rail	Thruway	
4:00 PM						
4:30 PM	Rail	Thruway				Rail
5:00 PM						
5:30 PM						
6:00 PM			Rail	Thruway	Rail	
6:30 PM						
7:00 PM	Rail	Thruway				Rail
7:30 PM			Greyhound	Greyhound		

A reasonable service plan would be for Tuolumne County Transit to operate two round trips per day between Sonora and Stockton. A Tuolumne County Transit bus could depart Sonora around 7:25 AM, stop in Jamestown and pick up transfers from Calaveras Transit in Copperopolis at around 8:00 AM. This would allow the TCT bus to connect with Amtrak and Greyhound services around 8:45 AM in Stockton (see Table 25). The route should also include a stop at the San Joaquin RTD Downtown Transit Center. As attracting commuters would not be the primary focus of this service, providing the second round trip in the afternoon instead of the evening would make the service more attractive to Tuolumne/Calaveras County residents wishing to make a round trip in one day. The afternoon trip could depart Stockton at around 3:15 PM, arrive in Copperopolis at 4:00 PM and return to Sonora by 4:30 PM.

Using an operating cost per hour factor of \$68.09 for TCT (obtained from the most recent Tuolumne County Transit Development Plan), TCT costs for the service are estimated at \$110,000 per year. The cost to Calaveras Transit of providing two additional roundtrips between San Andreas and Copperopolis is \$43,900. Intercity transit demand from Sonora to Stockton was estimated using the average of the following:

- ◆ TCRP Intercity Demand Regression Model with assumption of operation by an Intercity Bus Carrier
- ◆ TCRP Intercity Demand Trip Rate Model
- ◆ Peer intercity transit services ridership per capita rate applied to Tuolumne County

Intercity transit demand between Sonora and Stockton is assumed to be around 4,500 one-way passenger trips. Ridership between Copperopolis and San Andreas was estimated based on 2008 ridership for the previously operated mid-day runs. Roughly only 500 additional one-way trips would result for combined ridership of 5,000. A slightly higher fare for service between Sonora and Stockton could be charged as the one-way distance is nearly 20 miles longer. With a full intercity fare of \$6.00 per one-way trip, this alternative would produce \$27,800 in fare revenue and require an annual operating subsidy of \$126,100.

Calaveras Transit Provides Service to Stockton via Sonora and Copperopolis

Another option would be for Calaveras Transit to operate the entire route from San Andreas – Angels Camp – Sonora – Copperopolis – Stockton and return. The advantage of this alternative is that it creates two round trips between San Andreas and Sonora. With the proposed schedule, Calaveras Residents could arrive in Sonora around 7:30 AM and catch the return trip from Stockton at around 10:30 AM. This allows for almost three hours in Sonora, adequate for a medical appointment and some shopping. The afternoon trip would likely be more attractive with an arrival in Sonora at around 1:30 PM, departing around 4:30 PM. As the ridership potential is greater between Angels Camp and Sonora as it is between San Andreas and Copperopolis, this scenario would generate more ridership overall. In terms of intercity transit demand, that would remain relatively the same between the Calaveras Transit operated scenario and the TCT operated scenario. However, greater ridership would result from increased service between Angels Camp and Sonora. Overall, this option would cost more than the TCT operated option with greater ridership gain. Also with this alternative a joint FTA 5311(f) application should be prepared between the two counties.

Potential Seasonal Connection to Yosemite Valley

Connections for Bay Area and Central Valley residents to the seasonal YARTS service to Yosemite were also considered as part of the Sonora analysis. In theory, a Bay Area resident could catch an Amtrak train to Stockton and connect to the afternoon departure of the Stockton to Sonora intercity bus. After spending the night in Sonora the visitor could catch the 8:15 AM YARTS bus at the Inns of California in downtown Sonora to Yosemite Valley. Unfortunately, the YARTS bus does not return to Sonora from Yosemite until 7:45 PM, significantly after the departure of the Sonora/Stockton intercity bus at 4:30 PM, therefore another overnight stay in Sonora would be required. Although this connection is possible, it is not likely that it would generate significant ridership.

SERVICE ALTERNATIVES PERFORMANCE ANALYSIS

Using the information presented above, a performance analysis was conducted that allows a convenient comparison of the various service alternatives. This performance analysis, based on a series of five standard transit performance measures, is shown in Table 29. A review of this table indicates the following:

Destination/Alternative	Performance Measure				
	Passenger-Trips per Vehicle-Hour	Passenger-Trips per Vehicle-Mile	Cost per Passenger-Trip	Subsidy per Passenger-Trip	Marginal Farebox Return Ratio
<u>Stockton</u>					
Commuter	6.3	0.16	\$14.16	\$10.16	28%
Stockton Intercity Combo: Morning/Evening Express Only - 5 Days a Week	8.3	0.21	\$10.63	\$7.06	34%
Stockton Intercity Combo: Morning and Afternoon 5 Days a Week	6.7	0.18	\$12.84	\$8.41	35%
Stockton/Lodi - NEMT Service	1.8	0.15	\$28.00	\$18.00	36%
<u>Lodi</u>					
Lodi Intercity/Commuter Service	4.6	0.13	\$18.29	\$14.29	22%
<u>Sacramento/Sutter Hill/Jackson</u>					
Advertised Direct Service Sutter Hill Transit Center - Once a Day	4.7	0.10	\$21.00	\$19.85	5%
One Additional Run to Sutter Hill Transit Center to allow for round trip to Sacramento	2.4	0.09	\$30.67	\$29.51	4%
<u>Sonora</u>					
Angels Camp to Sonora - Two roundtrips	3.8	0.15	\$20.66	\$19.16	7%
<u>Joint Calaveras/Tuolumne Intercity Service to Stockton</u>					
Primarily operated by TCT, Transfer in Copperopolis	2.4	0.06	\$30.78	\$25.22	18%
San Andreas - Angels Camp - Sonora - Stockton (Operated by Calaveras Transit)	2.9	0.08	\$29.66	\$25.42	14%

- ◆ The **Passenger-Trips per Vehicle-Hour of Service** ranges from a high of 8.3 for the Stockton Morning/Evening Express, to a low of 1.8 for the NEMT service. These values are also shown in Figure 16. Overall, the better performing alternatives are for Calaveras Transit service to Stockton. It is worth noting that the options of direct service to Stockton by Calaveras Transit are more productive than either of the options of joint Calaveras/Tuolumne service.
- ◆ Another measure of productivity is the **Passenger-Trips per Vehicle-Mile of Service**. This ranges from a high of 0.18 for the Stockton Intercity Combo Alternatives to a low of 0.06 on the Sonora – Stockton TCT operated service.
- ◆ A key measure of cost efficiency is the **Cost per Passenger-Trip**. A lower value reflects a “better” or more efficient alternative. These values range from a low of \$10.64 for the Stockton Intercity Combo Morning/Evening Express to a high of \$30.78 for the Sonora – Stockton TCT operated service. Again, the direct service to Stockton is a better (more cost-efficient) alternative than either of the joint Tuolumne/Calaveras options.
- ◆ Perhaps the best overall measure of efficiency is the **Subsidy per Passenger-Trip**. This directly relates the key public input (funding) with the key output of a transit service (passenger-trips). As indicated in Figure 17, the best alternative by this measure is the Stockton Intercity Combo: Morning/Evening Express alternative, requiring \$7.06 in subsidy per passenger-trip. On the other extreme, an additional run to the Sutter Hill Transit Center/Jackson would require \$29.51 per passenger-trip.
- ◆ Finally, the **Marginal Farebox Return Ratio** is calculated as the ratio of farebox revenues to operating costs. The “best” alternative by this measure is Stockton/Lodi NEMT service, whereby 36 percent of costs are recovered through the farebox. On the other hand, the additional run to Sutter Hill/Jackson would only generate revenues covering 4 percent of the marginal costs.

Overall, this performance analysis indicates that service to Stockton has the better performance measures. In particular, the combined service providing morning and evening express runs is the most efficient. The direct service to Stockton using Calaveras Transit has better overall performance than a joint service with Tuolumne Transit. The NEMT alternative, though less productive or efficient, has the advantage of serving an additional element of overall travel demand.

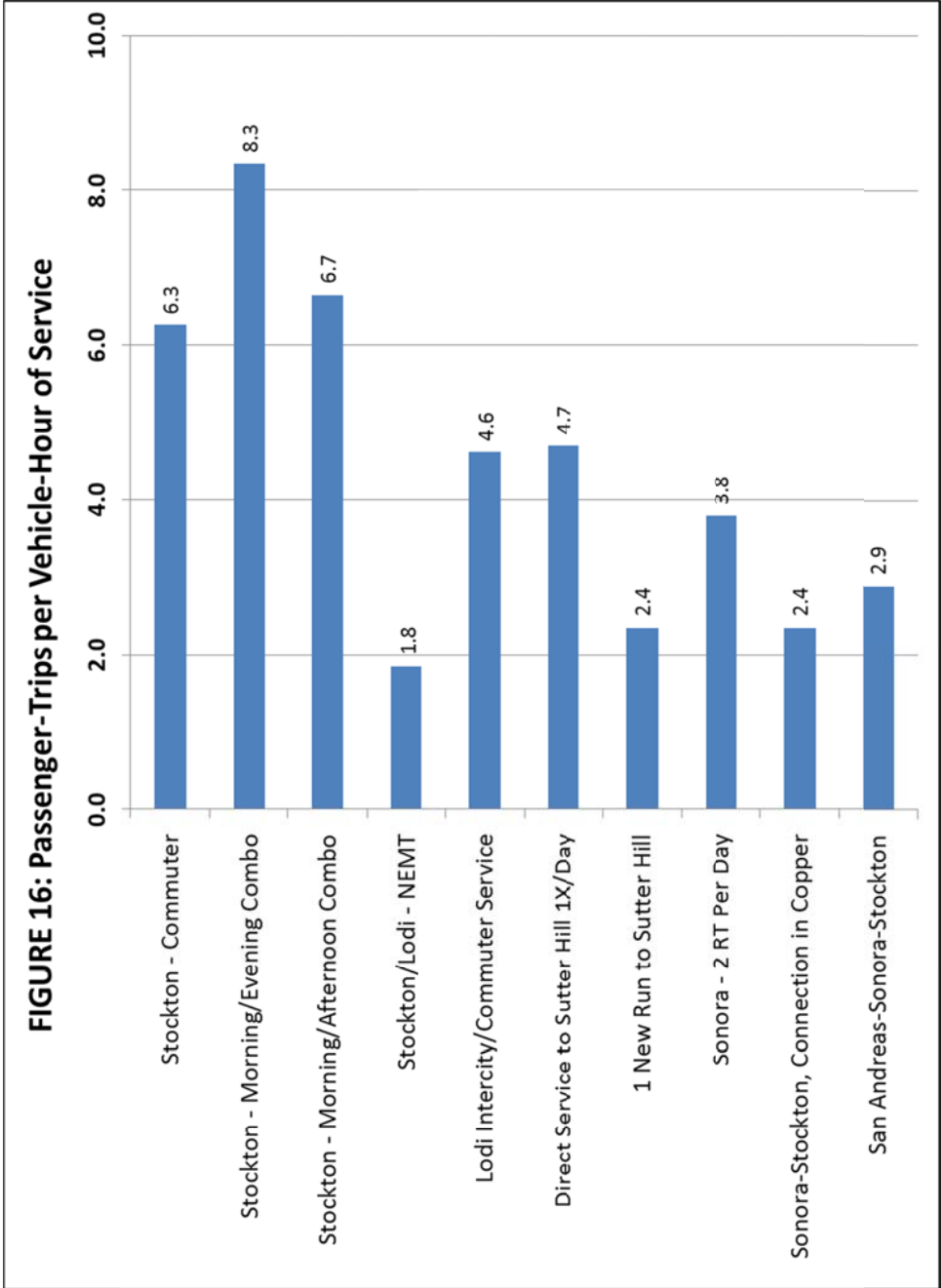
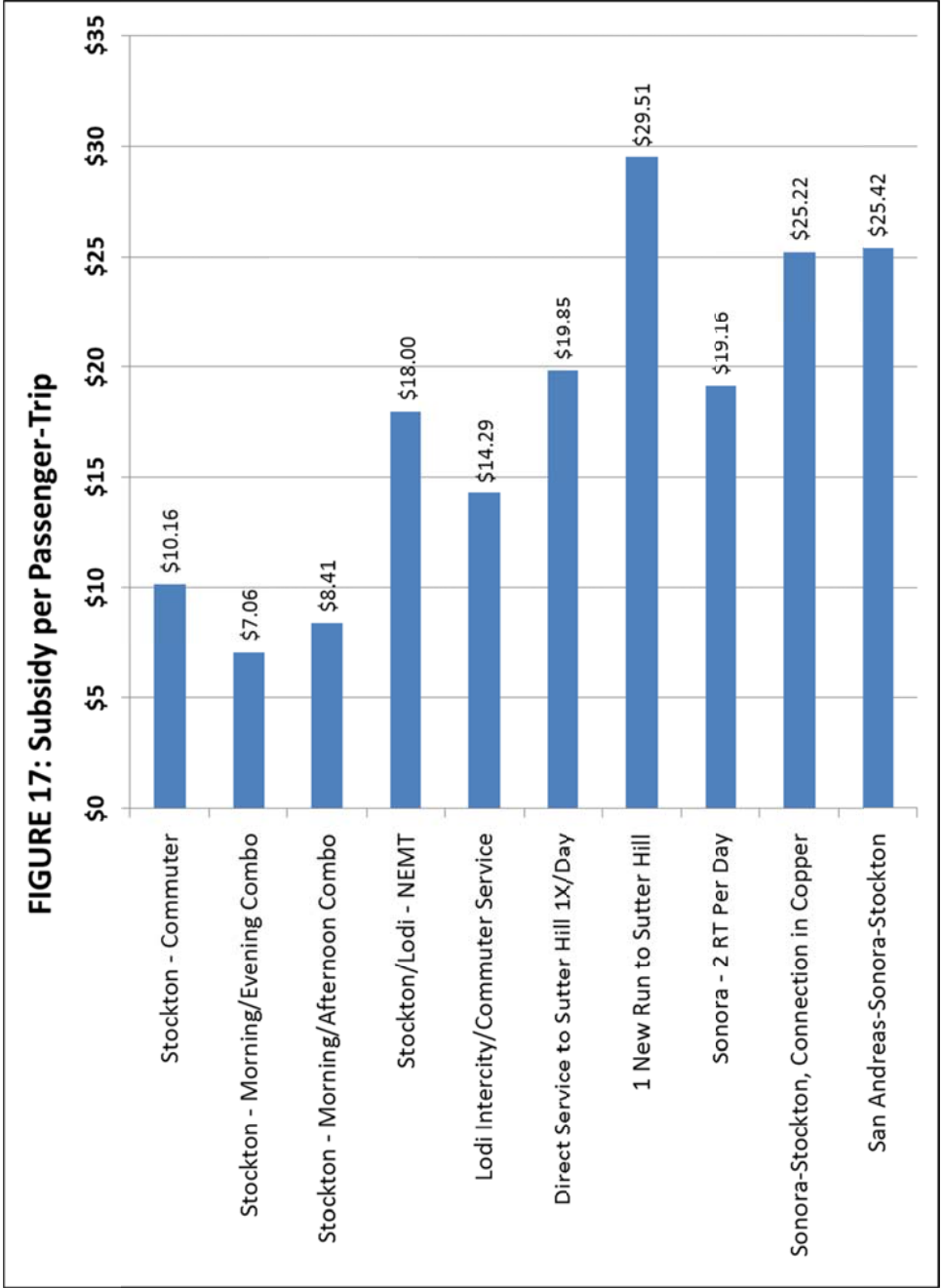


FIGURE 16: Passenger-Trips per Vehicle-Hour of Service



This Calaveras Transit Intercity Service Plan is intended to guide the development of new intercity transit service for Calaveras County residents. Much of the analysis used as a basis for the plan is presented in previous chapters; the reader is encouraged to refer to previous chapters for additional information and discussion regarding the various plan elements presented below.

The various Service, Capital, and Financial elements of the Plan are first presented, followed by an Implementation Plan to guide transit improvements. Together, these elements will increase access to intercity transit services in urban areas as well as to medical services and Delta College. This plan is contingent upon many factors, particularly future funding availability and the successful award of FTA grant funding. In addition, changes in development and population and other factors, such as the cost of driving, could impact the demand for intercity public transit services in the future.

SERVICE PLAN

The following are the recommended plan elements from the list of intercity alternatives discussed in the previous chapter. This recommended plan is based on performance of the alternatives as shown in Table 29, expected funding availability, and discussions with stakeholders and the public. Table 30 presents operating cost, fare revenue and ridership for the five-year Intercity Service Plan and the suggested Coordinated Plan element.

Stockton Intercity Combination

The “Stockton Intercity Combination” should be implemented, consisting of daily service between San Andreas and Stockton, serving several stops in the Stockton area. The review of performance measures in the Alternatives Analysis demonstrate that the intercity alternatives to Stockton are the most productive and will require the smallest subsidy per passenger-trip as the result of greater ridership potential. In addition to general demand for intercity transit service connections, college student demand is anticipated to add to Stockton Intercity ridership. In an effort to maximize the time of day available for students to take classes at Delta College, the schedule option with a longer span of time available in Stockton (the “Morning and Evening” schedule) combined with the longer route in Stockton is the recommended service plan. Although a separate out-of-county NEMT service is recommended for transit dependent passengers with specialized needs as part of the Coordinated Planning effort, a two hour layover is included in the Stockton Intercity schedule in an effort to increase travel options for medical and shopping needs for Calaveras residents.

As shown in Table 31, Run 1 of the Stockton Intercity bus should depart the Government Center in San Andreas around 7:30 AM, reach Valley Springs before 8:00 AM and Stockton around 8:30 AM. Once in Stockton, passengers could make several conveniently timed intercity connections with Amtrak and Greyhound during the 9:00 AM hour. The intercity route will also stop at the RTD Downtown Transit Center and RTD Mall Transfer Station. San Joaquin RTD transfer centers are transit gateways to public transit services within the Stockton Metropolitan area as well as other communities in the county such as Lodi, Tracy, Manteca, and Ripon. RTD also offers interregional commuter service to Sacramento, BART (Bay Area), Livermore, and Sunnyvale. The RTD Mall Transfer Station directly serves Delta College.

Table 30: Calaveras Transit Plan Elements

	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Intercity Service Plan Elements					
<u>Stockton Intercity Service</u>					
Operating Costs	\$150,700	\$153,700	\$156,800	\$159,900	\$163,100
Farebox Revenue	\$43,044	\$43,500	\$43,900	\$44,300	\$44,700
Ridership	10,000	10,100	10,200	10,300	10,400
<u>Advertised Direct Connection to Sutter Hill Transit Center Once a Day</u>					
Operating Costs	\$4,200	\$4,300	\$4,400	\$4,500	\$4,600
Farebox Revenue	\$230	\$230	\$230	\$230	\$230
Ridership	200	200	200	200	200
<u>Total Intercity Service Plan</u>					
Operating Costs	\$154,900	\$158,000	\$161,200	\$164,400	\$167,700
Farebox Revenue	\$43,274	\$43,730	\$44,130	\$44,530	\$44,930
Ridership	10,200	10,300	10,400	10,500	10,600
Suggested Coordinated Plan Elements					
<u>Stockton/Lodi NEMT Service</u>					
Operating Costs	\$22,400	\$22,800	\$23,300	\$23,800	\$24,300
Farebox Revenue	\$8,000	\$8,100	\$8,200	\$8,300	\$8,400
Ridership	800	810	820	830	840

Table 31: Recommended Service Plan Schedule

Monday to Friday

	Run 1		Run 2
Government Center (San Andreas)	7:32 AM	Government Center (San Andreas)	2:47 PM
SR 12/26 (Toyon)	7:41 AM	SR 12/26 (Toyon)	2:56 PM
Valley Springs (SR 12/26)	7:48 AM	Valley Springs (SR 12/26)	3:03 PM
Rancho Calaveras (26 and Baldwin)	7:54 AM	Rancho Calaveras (26 and Baldwin)	3:09 PM
Linden	8:13 AM	Linden	3:28 PM
Arrive Stockton		Arrive Stockton	
RTD Downtown Transit Center	8:32 AM	RTD Downtown Transit Center	3:48 PM
Amtrak (San Joaquin St. Station)	8:35 AM	Greyhound	3:50 PM
Greyhound	8:40 AM	Layover	
Kaiser Dameron Hospital (Request)	8:44 AM	Amtrak Downtown Station/ACE Station	5:50 PM
RTD Mall Transfer Station/Delta College	8:55 AM	RTD Downtown Transit Center	5:56 PM
Hammer/West Lane (Kaiser Medical Offices)	9:03 AM	Amtrak (San Joaquin St. Station)	5:58 PM
Layover		Greyhound	6:00 PM
RTD Downtown Transit Center	11:00 AM	Kaiser Dameron Hospital (Request)	6:05 PM
Amtrak (San Joaquin St. Station)	11:02 AM	RTD Mall Transfer Station/Delta College	6:13 PM
Greyhound	11:04 AM	Hammer/West Lane (Kaiser Medical Offices)	6:21 PM
Depart Stockton		Depart Stockton	
Linden	11:21 AM	Linden	6:44 PM
Rancho Calaveras (26 and Baldwin)	11:40 AM	Rancho Calaveras (26 and Baldwin)	7:03 PM
Valley Springs (SR 12/26)	11:46 AM	Valley Springs (SR 12/26)	7:09 PM
SR 12/26 (Toyon)	11:53 AM	SR 12/26 (Toyon)	7:16 PM
Government Center	12:02 PM	Government Center	7:25 PM

The intercity route also has scheduled stops at Kaiser Hospital and Hammer/West Lane (Kaiser Medical Offices) to help meet intercity medical and shopping needs. With a two hour layover in Stockton built in to the schedule for each run, it would be possible for a passenger to go to a medical appointment or do some shopping and return to Calaveras County within a five hour time period. The longer time in Stockton also allows for additional connections to Greyhound and Amtrak services arriving in Stockton between the 9:00 AM to 11:00 AM hours.

Run 2 should depart Calaveras just before 3:00 PM to good connections with outbound Greyhound intercity services around the 4:00 PM hour, as well as connect passengers to RTD routes at local Stockton destinations at the Downtown Transit Center. After the two hour layover, the intercity bus should pick up passengers arriving in Stockton via Amtrak and Greyhound around 5:50 PM and return to Valley Springs just after 7:00 PM and to San Andreas by 7:30 PM. A Delta College student would be able to attend a full day of classes and catch the 6:13 return bus to Calaveras County.

Amtrak and Greyhound schedules are always subject to change and should be consulted prior to finalizing the schedule. The recommended Stockton Intercity Route is graphically displayed in Figures 18 and 19.

Fare rates should be in line with other intercity transit services travelling a similar service, yet not be cost prohibitive for potential intercity passengers. A reasonable fare structure would be \$5.00 per one-way trip with no discounts available. However, frequent riders such as commuters and students should be provided with the option to purchase a 10 ride punch pass for \$40.00, for an average one-way trip cost of \$4.00.

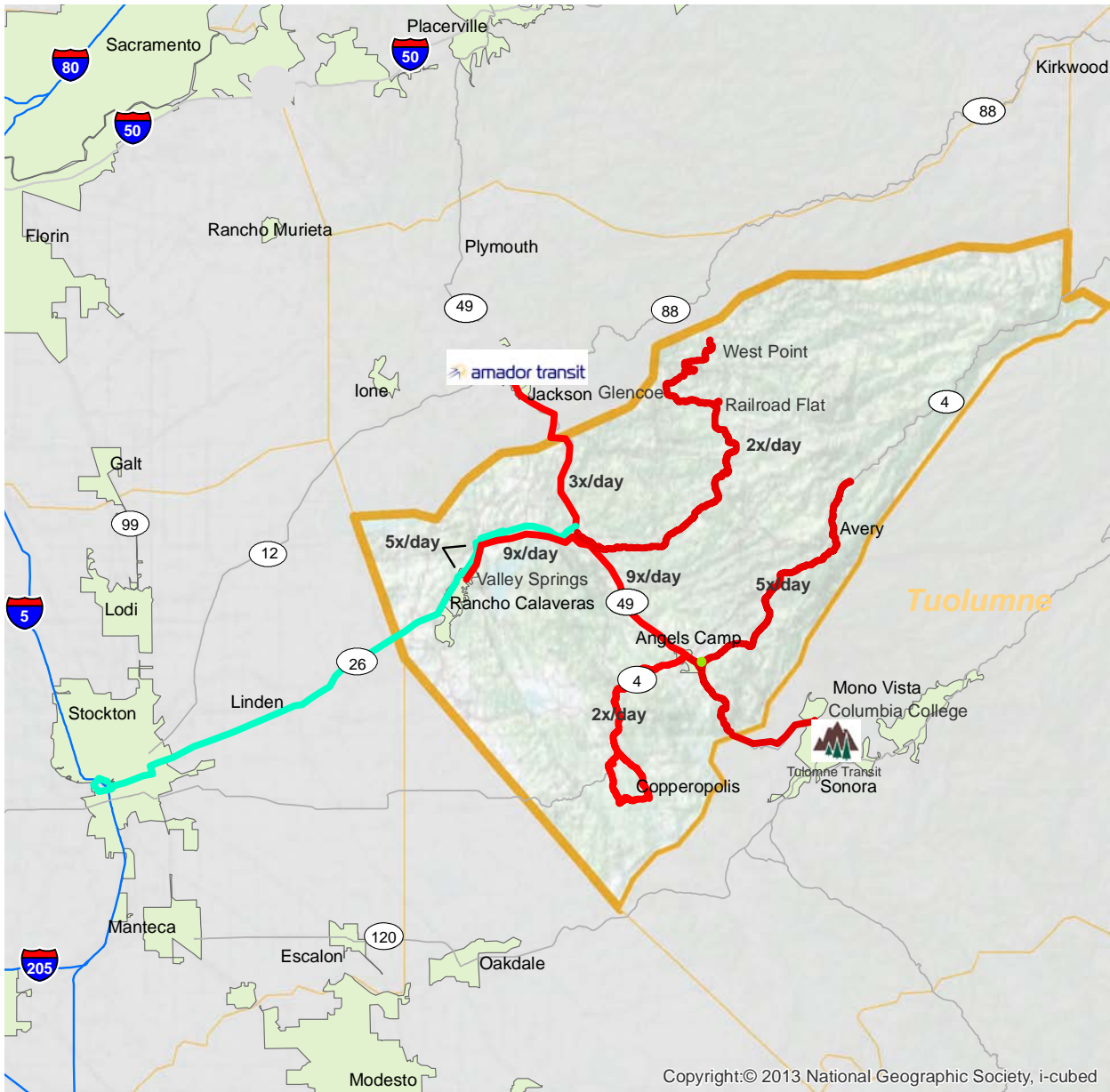
The two round trips to Stockton following the schedule in Table 31 equate to roughly 200 daily vehicle service miles, 5.0 daily vehicle in-service hours, and 4.3 daily non-revenue hours. The annual operating cost will be on the order of \$150,700 with fare revenues amounting to roughly \$43,000. This results in an operating subsidy of \$107,700 per year. Ridership is estimated at 10,000 annual one-way passenger trips, including trips taken by residents accessing intercity transit services, a few commuters, Delta College students, and residents with medical appointments or other urban area needs. It is also anticipated that the increased service between Rancho Calaveras and San Andreas will boost ridership on the new service.

Coordinate To Service Non-Emergency Medical Transportation Needs to Stockton/Lodi

In an effort to more directly serve out-of-county medical and social service needs for Calaveras County residents requiring more personalized service, a separate Non-Emergency Medical Transportation (NEMT) service is recommended. This type of service would cater to low income, elderly and persons with disabilities and therefore be eligible for FTA 5311 and 5310 funding rather than FTA 5311(f) intercity grant funding. As such, NEMT service should be addressed in Calaveras County's Coordinated Public Transit Human Services Transportation Plan. However, it is relevant to this study to identify the need to coordinate between an NEMT service and the Stockton Intercity Route.

The alternatives section of this plan explored the option of providing NEMT service to either Stockton or Lodi one day a week. Advance reservations would be required and appointments in

Figure 18
Calaveras Transit Existing Services
with Proposed Stockton Intercity Route



Copyright:© 2013 National Geographic Society, i-cubed

Calaveras Bus Routes

- Existing Calaveras Transit Services
- Proposed Stockton Intercity
- Urban Areas

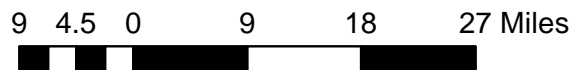
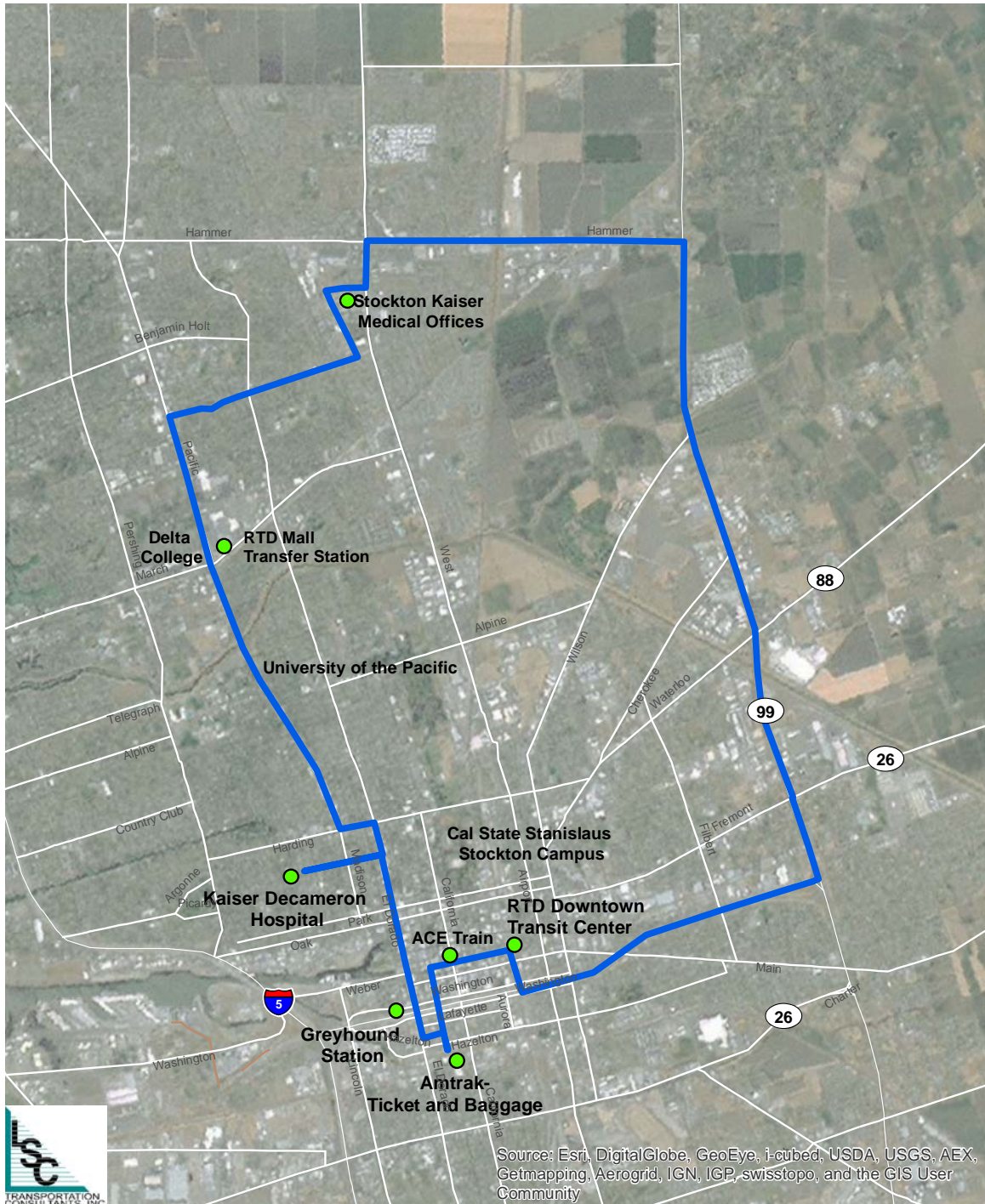
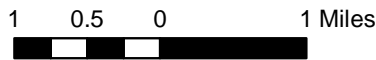


Figure 19 Stockton Intercity Route



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Intercity Bus Stop
- Intercity Route



Stockton/Lodi must be made between 10:00 AM and 2:00 PM. The most efficient method of providing service would be to establish pick up/drop off points in Calaveras County (San Andreas, Valley Springs, and Rancho Calaveras) instead of picking up passengers at their homes. Curbside service at the medical appointment destination would be provided for each passenger.

The NEMT service should be coordinated with both the Calaveras Transit fixed route schedules and the Stockton Intercity Route. This way, the combined options of the Intercity Service and NEMT service would allow for a larger time window to schedule medical appointments, as well as provide more opportunities for Calaveras County residents who may require curbside service in Stockton.

It is estimated that a one day a week NEMT service would cost on the order of \$22,400 annually and carry roughly 800 one-way passenger-trips. With a one-way fare of \$10.00, an operating subsidy of \$14,400 would be required.

Advertise and Provide a Direct Connection to Sutter Hill Transit Center for the 3:30 Connection with the Sacramento Express

Under the current schedule, Calaveras Transit Route 3 will deviate upon request to the Sutter Hill Transit Center from Raley's in Jackson in order to connect with the Amador Transit Sacramento Express departure at 3:30 PM. As discussed in the alternatives section, it is recommended that an additional 10 minutes be built into the transit schedule in order to maintain good on-time performance on this Route 3 run. This schedule adjustment is estimated to cost \$4,200. Although not eligible for FTA 5311(f) funding, this is an important intercity connection for Calaveras County residents (in that it provides access to commercial air service, medical facilities, and other intercity travel options in Sacramento) and should be more widely advertised. The most recent Route 3 schedule identifies the potential connection to the Sacramento Express service but time points for the Sutter Hill Transit Center are not listed. It is recommended that this plan element be implemented as part of the TDP update, as it would require schedule adjustments of the existing Calaveras Transit routes. Further, Calaveras Transit should collaborate/coordinate with Amador Transit in the preparation of a FTA 5311(f) grant from expanded Sacramento Express services.

Improve Connections to Jackson and Sonora As Part of the Transit Development Plan Update

This study determined that there is a substantial need for expanded access both to Jackson and Sonora, though improving these connections would not be eligible for FTA 5311(f) funding. Increasing service to Jackson or providing direct service to Sonora would also require modifications to existing Calaveras Transit routes. As such, these alternatives would be more appropriately addressed in the upcoming Short Range Transit Development Plan Update and are thus not identified in Table 30.

CAPITAL PLAN

The Stockton Intercity Route will require one vehicle with passenger capacity of least 15 passengers, based on projected ridership. In order to be eligible for FTA 5311(f) funding, the

transit vehicle must include "racks above the seating area, or a designated outer compartment where luggage can be carried safely." A new vehicle could be acquired for the service or an existing Calaveras Transit vehicle could be modified, depending on existing and projected needs. The vehicle should be wheelchair accessible. Vehicles could be procured through the CalACT MBTA contract. The only type of vehicle on the contract list which includes luggage racks as an option is the Class E large cutaway vehicle. The cost of a 27.5 foot cutaway with luggage racks would be on the order of \$75,000.

It is anticipated that the NEMT service could carry around 15 daily passenger-trips or 7 people. Therefore, a small eight to twelve passenger cutaway vehicle with wheelchair lift is recommended. The cost of this type of vehicle ranges from \$45,000 to \$55,000.

FINANCIAL PLAN

This financial plan (Table 32) outlines the operating and capital financial requirements for both the intercity service plan elements and the suggested coordinated plan elements with which the intercity route should be coordinated.

This Intercity Service Plan is designed to meet the eligibility requirements of the FTA 5311(f) discretionary grant program. A successful grant award will cover 55.33 percent of operating costs and 88.53 percent of capital costs for intercity bus service. For the FY 2012-13 funding cycle, Toll Credits could be used as the 44.67 local match for operating expenses. It is assumed for this plan that Toll Credits will be available as local match for FTA 5311(f) projects for the life of the plan. However, public funding sources are always subject to change depending on strength of the economy and politics. There is a maximum award limit of \$300,000 for operating expenses, \$200,000 for capital purchases and \$200,000 for planning and marketing studies. Operating funding is available for new, expansion and continuation of intercity services.

As presented in Table 32, operating costs for the Stockton Intercity Route and Improved Connection to Sutter Hill Transit Center will be funded through a combination of FTA 5311(f), Toll Credits, and Transportation Development Act (TDA) funds throughout the planning period. With the continued availability of Toll Credits, the Stockton Intercity Route plan element is 100 percent funded with non-local funds. A small amount of TDA will be necessary to fund the Improved Connection to the Sutter Hill Transit Center.

On the Coordinated Plan side, a potential funding source for the NEMT service is the FTA 5310 Enhanced Mobility for Seniors and Person with Disabilities Program. Under the MAP-21 federal transportation bill, the 5310 competitive grant program now includes eligible uses previously covered by the New Freedom grant program. In summary, eligible projects under the 5310 program include:

Capital Projects (55 percent program funds)

- ◆ Public transportation projects planned, designed, and carried out to meet the special needs of seniors and individuals with disabilities when public transportation is insufficient, inappropriate, or unavailable.

Table 32: Calaveras Intercity Service Financial Plan

	Projected FY 14-15	Projected FY 15-16	Projected FY 16-17	Projected FY 17-18	Projected FY 18-19
Operating Plan					
<u>Intercity Plan</u>					
Costs	\$ 154,900	\$ 158,000	\$ 161,200	\$ 164,400	\$ 167,700
Revenues					
Passenger Fares	\$ 43,300	\$ 43,700	\$ 44,100	\$ 44,500	\$ 44,900
FTA 5311(f)	\$ 59,600	\$ 61,000	\$ 62,500	\$ 64,000	\$ 65,500
Toll Credits ⁽¹⁾	\$ 48,100	\$ 49,200	\$ 50,400	\$ 51,600	\$ 52,900
TDA	\$ 3,900	\$ 4,100	\$ 4,200	\$ 4,300	\$ 4,400
<i>Total</i>	\$ 154,900	\$ 158,000	\$ 161,200	\$ 164,400	\$ 167,700
Balance	\$ -	\$ -	\$ -	\$ -	\$ -
<u>Coordinated Plan Elements (Financially Unconstrained)</u>					
Costs	\$ 22,400	\$ 22,800	\$ 23,300	\$ 23,800	\$ 24,300
Revenues					
Passenger Fares	\$ 8,000	\$ 8,100	\$ 8,200	\$ 8,300	\$ 8,400
FTA 5310	\$ 7,200	\$ 7,400	\$ 7,600	\$ 7,800	\$ 8,000
<i>Total</i>	\$ 15,200	\$ 15,500	\$ 15,800	\$ 16,100	\$ 16,400
Balance	\$ (7,200)	\$ (7,300)	\$ (7,500)	\$ (7,700)	\$ (7,900)
Capital Plan					
Intercity Capital Costs	\$ 75,000	\$ -	\$ -	\$ -	\$ -
FTA 5311(f) Revenues	\$ 66,400	\$ -	\$ -	\$ -	\$ -
Toll Credits ⁽¹⁾	\$ 8,600	\$ -	\$ -	\$ -	\$ -
<i>Total</i>	\$ 75,000	\$ -	\$ -	\$ -	\$ -
Balance	\$ -	\$ -	\$ -	\$ -	\$ -
Coordinated Capital Costs	\$ 50,000	\$ -	\$ -	\$ -	\$ -
FTA 5310 Revenues	\$ 40,000	\$ -	\$ -	\$ -	\$ -
<i>Total</i>	\$ 40,000	\$ -	\$ -	\$ -	\$ -
Balance	\$ (10,000)	\$ -	\$ -	\$ -	\$ -
Note 1: The availability of Toll Credits as the local match is always subject to change. This plan assumes Toll Credits only for intercity elements based on conversations with Caltrans staff and other transit agencies.					

Remaining 45% program funds

- ◆ Public transportation projects that exceed the requirements of the ADA.
- ◆ Public transportation projects that improve access to fixed-route service and decrease reliance by individuals with disabilities on complementary paratransit.
- ◆ Alternatives to public transportation that assist seniors and individuals with disabilities.

A 50 percent local match is required for operating assistance, while a 20 percent local match is required for capital projects. As demonstrated in Table 32, the local match for operating the NEMT service would be on the order of \$7,200 in FY 2014-15. The capital local match would be \$10,000. Although Toll Credits has been available as a match for FTA 5310 funds in the past, recent discussions with transit operators indicate that this may not be available in the future. If this occurs, additional funds would need to be secured in order to implement the NEMT service.

IMPLEMENTATION PLAN

This schedule provides a timeline of the actions necessary to implement the elements identified in this plan.

Upcoming Fiscal Year (2014/15)

- ◆ Complete FTA 5311(f) grant application for both operating expenses and purchase of a new 15 passenger vehicle with luggage racks by April 30th.
- ◆ Grant Award Announcement by June 28th - Project activities must begin within four months of grant award.
- ◆ Conduct several “dry runs” of the new intercity route during the plan schedule hours and adjust the schedule accordingly.
- ◆ Meet with San Joaquin RTD to discuss use of their Downtown Transit Center, Mall Transfer Station and the Hammertown and Kaiser bus stop. Consider attending an SJCOG Interagency Transit Committee meeting to advertise the service and develop relationships with all transit operators in San Joaquin County.
- ◆ Meet with Delta College to advertise the service and discuss methods of outreach to college students. This may include staffing a booth at orientation fairs on the campus.
- ◆ Meet with Kaiser representatives to discuss potential drop-off/pick up at the hospital.
- ◆ The Calaveras County Coordinated Plan calls for the addition of a mobility management position to assist with the administration of coordinated strategies. Calaveras Transit should coordinate with the mobility manager to facilitate the transportation of NEMT passengers to Stockton.
- ◆ Implement the following marketing strategies:
 - Develop a flyer and route map for the Stockton Intercity service. Advertise on the Calaveras Transit website and social media outlets.
 - Work with SSTAC members and social service agencies to expand awareness of the new service.
 - The goal of the FTA 5311(f) grant program is to provide a seamless interregional transit services. Calaveras Transit should work with Greyhound and other intercity

service providers to offer ticketing services for Greyhound, so that a San Andreas passenger bound for Bakersfield could purchase a ticket and check luggage for the entire trip. At a minimum, Rural Intercity Service providers must publish their bus schedule in one or more of the following ways:

- Publish in Russell's Motor Guide. Email address:
 - Charlotte Bonar, Editorial, cbonar@russellsprinting.com
 - Maintain an active link to California Transit website. <http://www.catransit.com/>
 - Participate in the Greyhound Rural Feeder Program. Website address:
 - <http://extranet.greyhound.com/revsup/rfs/>
 - Register in Google Transit through their website: <http://www.google.com/transit>
- ◆ After service has been implemented, conduct an informal survey of passengers to obtain opinions and suggestions for improvements.

FY 2015 -16

- ◆ Reevaluate intercity stops and schedules based on the first year of ridership
- ◆ Periodically review Greyhound, Amtrak and San Joaquin RTD schedules to ensure the meaningful connections to intercity transit services are continually available.

FY 2016 – 17

- ◆ Apply for continued funding under the FTA 5311(f) grant program for the next funding cycle.

Appendix A
Public Workshops

Calaveras Transit Intercity Service Feasibility Study



WE NEED YOUR INPUT!



Calaveras Council of Governments

Calaveras Council of Governments is conducting a survey of the need for bus service to cities outside of Calaveras County, and we would like to include your opinions. To participate in a five-minute on-line survey, please go to the following website:

<https://www.surveymonkey.com/s/CalaverasTransit>

Your input will be used to evaluate the feasibility of Calaveras Transit providing public transit service to communities outside of Calaveras County such as Stockton, Sonora, or Sacramento to access medical appointments, shopping and connecting with other transportation networks (Greyhound and Amtrak).

Alternative ways to provide input . . .

To request a hard copy of the survey, participate in the survey over the phone, or simply provide input, please contact:

GENEVIEVE EVANS
LSC TRANSPORTATION CONSULTANTS, INC.
Email: Genevieve@lsctahoe.com
Phone: 800-866-5446 or 530-583-4053



Calaveras Transit Out-of-County Bus Service Feasibility Study



WE NEED YOUR INPUT!



Calaveras Council of Governments is studying the need for bus service to cities outside of Calaveras County, and we would like to include your opinions.

**To learn more we invite you to attend
a public workshop**

Wednesday, September 25 VALLEY SPRINGS

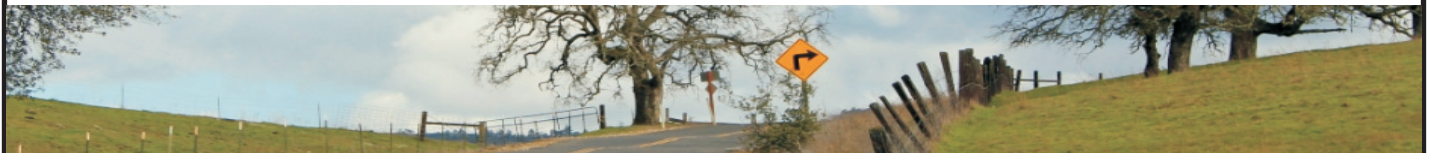
Pizza Factory
1919 Vista Del Lago Drive, #5
Valley Springs, CA 95252
Open House: 6:00-8:00 PM
Presentation at 6:30 PM
Pizza provided for attendees of the
presentation

Thursday, September 26 ANGELS CAMP

Bret Harte Union High School
Multi-Purpose Room
323 S. Main Street
Angels Camp, CA 95222
Open House: 4:30-6:00 PM
Presentation at 5:00 PM
Light refreshments provided

For questions, contact -

GENEVIEVE EVANS
LSC TRANSPORTATION CONSULTANTS, INC.
Email: Genevieve@lscstahoe.com
Phone: 800-866-5446 or 530-583-4053





For Immediate Release

Contact:

Genevieve Evans
LSC Transportation Consultants Inc.
530-583-4053
genevieve@lsctahoe.com

Public Workshops for Intercity Transit Services Study to be Held September 25th and 26th

The Calaveras Council of Governments is hosting two public workshops for the purpose of obtaining input on the Calaveras Transit Intercity Services Feasibility Study, currently underway. The workshops will be held on November 19th from 1:30 – 2:30 PM at Round Table Pizza in Angels Camp and 5:30 – 6:30 PM at the Pizza Factory in Valley Springs. At the workshops, the Consultant will present draft out-of-county transit service scenarios and ask for input from the public.

Currently, Calaveras County residents do not have convenient access to urban services, airlines, Amtrak or intercity bus service. The Calaveras Council of Governments Social Services Transportation Advisory Council has indicated a need for increased public transportation options from Calaveras County to larger urban areas, such as Stockton, Lodi, and Sacramento. In addition, there is a substantial level of commuting both into and out of the county. While Calaveras Transit previously provided service between San Andreas and Lodi, this service was discontinued in 2009 as the recession reduced available funding.

The purpose of this study is to review the transportation needs and demand for public transit services between Calaveras County and destinations such as Stockton, Lodi, Sacramento, and Modesto. Ideally, the new route(s) would provide meaningful connections to Greyhound and Amtrak, meet out-of-county medical needs for human service agency clients, and effectively serve commuters. If found to be feasible, federal funds may be available to support new services. Input from the public workshops will be used to develop a Draft Calaveras Transit Intercity Services Plan.

Community members are encouraged to attend the meetings. For more information about Calaveras Transit Intercity Services planning process, you may contact the Calaveras Council of Governments at (209)-754-2094 or LSC Transportation Consultants at (530) 583-4053.

Calaveras Intercity Transit Feasibility Study

September Public Workshops Notes

WHAT ARE OUT-OF-COUNTY AND INTERCITY NEEDS?

Youth and Elderly

- Needs better schedules to Columbia College and Delta College
- Run to Delta College
- Bus from college after 8 PM
- Need more buses for college (seasonal)
- Focus on youth and elderly with no vehicle available
- Discount for youth to encourage transit use

Work – Stockton/Jackson

- Non-traditional hours
- Subsidize bus passes
- Independence, be involved in community
- Disabled –
 - Work – Stockton
 - ARC Stockton/Kaiser
 - Lori Memorial
 - Medical
- Out-of-county too expensive

Intercity factors

- Stockton, Amtrak 2 day week and weekend
- Need place where can check baggage
- Good for commuters
- Convenience
- Coordinate with other transit schedules
- Where would Calaveras Transit stop in other cities?
- Transit buses not frequent enough
- Able to do half day trip
- Focus in county
- Be flexible

Other factors

- ARC finds job by bus schedule
- Commute to Jackson
- Coordinate with school district
- Recreation – bowling alley, movies
- Shopping – Walmart near Kaiser

- Shopping – Stockton, connect to public transit
- Shopping – Hammer, Pacific, March, Costco, Walmart
- Long trip on Greyhound
- Shelters
- Arc COST
- Direct line to airport, private airport shuttles, savings of not paying for parking
- Comment: “People move out of here when they can’t drive.”

Other consideration and needs

- Medical facilities improving
- Consider folks coming into the county
- Working in Bay Area -- would have to go early
- Calaveras Transit Riders
- Sonora – 1 OBGYN in Calaveras -- need to be back before school ends
- Accommodate school schedule
- Have to go to San Francisco for son’s dentist
- Many students go from Copper to San Andreas
- Lodi – bring back service
- Grocery store in Lockeford
- ARC – Employees of ARC would take bus from Carson
- Jackson – leaving ARC after 9 AM and back before 3 PM
- Schedule a little bit off
- Blue Mountain can’t drop at bus stop

**Calaveras Transit
Out-of-County
Bus Service
Feasibility Study
PUBLIC MEETING**



**Wednesday, NOVEMBER 20
- ANGELS CAMP -
Roundtable Pizza**

27 N. Main Street, Angels Camp, CA 95222
Meeting: 1:30-2:30 PM

***PURPOSE: To obtain input on draft
out-of-county service alternatives.***

For questions, contact -
GENEVIEVE EVANS at
LSC Transportation Consultants
Email: Genevieve@lsctahoe.com
Phone: 530-583-4053

**Calaveras Transit
Out-of-County
Bus Service
Feasibility Study
PUBLIC MEETING**



**Wednesday, NOVEMBER 20
- VALLEY SPRINGS -
Pizza Factory**

1919 Vista Del Lago Drive,
Valley Springs, CA 95252

Meeting: 5:30-6:30 PM

***PURPOSE: To obtain input on draft
out-of-county service alternatives.***

For questions, contact -
GENEVIEVE EVANS at
LSC Transportation Consultants
Email: Genevieve@lsctahoe.com
Phone: 530-583-4053

Calaveras Transit Out-of-County Bus Study Potential Service Alternatives Summary of Public Workshop Presentation for the “Local Scoop” Newspaper

Purpose: To determine the feasibility of providing public transit outside of Calaveras County which primarily provides meaningful connections to Greyhound and Amtrak, but may also meet out-of-county medical needs for human service agency clients and effectively serve commuters.

Stockton

Intercity

- ◆ Two round trips per day, five days a week
- ◆ A variety of schedule options were reviewed:
 - Morning and afternoon runs **or**
 - Morning and evening runs
- ◆ Potential stops in Stockton:
 - Amtrak
 - Greyhound
 - San Joaquin RTD Downtown Transit Center
 - Kaiser
 - Delta College
 - Mall

Non-Emergency Medical Transportation to Stockton or Lodi – One day a week, advance reservations required

Lodi

Commuter service - two runs a day, five days a week

Jackson/Sutter Hill/Sacramento

- ◆ Advertise and provide direct service to Sutter Hill Transit Center to improve connections to Amador Transit Sacramento Express
- ◆ Coordinate with Amador Transit and perhaps add an extra round trip to Jackson/Sutter Hill Transit Center so that Calaveras passengers could make a one day trip to Sacramento

Sonora

- ◆ Provide direct service to Sonora from Angels Camp

Coordination with Tuolumne County Transit Sonora – Stockton

- ♦ TCT provides service from Sonora to Stockton and Calaveras Transit provides service to Copperopolis to transfer with TCT
- ♦ Calaveras Transit provides service from San Andreas – Sonora - Copperopolis – Stockton

Analysis – Stockton alternatives are the most productive and cost efficient.

Appendix B
Calaveras Phone Survey

Respondent # _____

Calaveras County Telephone Survey

Check area phone number is listed under. If not sure, ask interviewee the area:

- Angels Camp
- Arnold
- Avery
- Copperopolis
- Mokelumne Hill
- Mountain Ranch
- Murphys
- Rancho Calaveras
- San Andreas
- Vallecito
- Valley Springs
- West Point
- Other: _____

NAME PHONE NUMBER LISTED UNDER _____
 PHONE NUMBER _____
 INTERVIEWER _____
 DATE _____

START SURVEY

Hi. Calaveras Council of Governments is conducting a survey of the need for bus service to cities outside Calaveras County, and we would like to include your opinions. The survey will take about five to ten minutes. The results will help us improve bus programs in Calaveras County. Would you like to participate?

[If no, thank them, suggest participating in on-line survey at www.surveymonkey.com/s/CalaverasTransit and hang up.]

[Confirm location of residence.]

I'd like to include information on everyone in your household over 14 years old. First, I'd like to ask you a few background questions.

1. Are you at least 18 years old?

Yes (continue) No – (ask to speak to an adult)
 [If an adult is not available, ask when a good time to call back, thank them, and end survey. Write time here.]

2. Gender (by observation; circle one) Male Female

3. How many people are in your household? (circle the correct number)
 1 2 3 4 5 or more

4. Into which of the following age categories do you and your household members fall? (circle one for each)

Person 1	18 to 24	25 to 54	55 to 64	65 or older		
Person 2	under 16	16 to 24	25 to 54	55 to 64	65 or older	not sure
Person 3	under 16	16 to 24	25 to 54	55 to 64	65 or older	not sure
Person 4	under 16	16 to 24	25 to 54	55 to 64	65 or older	not sure
Person 5	under 16	16 to 24	25 to 54	55 to 64	65 or older	not sure

5. How many people in your household can drive? (circle for each householder who drives).

Person 1 Person 2 Person 3 Person 4 Person 5

6. How many cars do you have in your household? (circle answer).

0 1 2 3 more than 3

In this next section, I'm going to ask you about travel patterns.

7. Most of the time, where do you and your household go for..... (include community names)

Doctor's appointments? _____
 Banking? _____
 Food shopping? _____
 Other shopping? _____
 Accessing air service (airport)? _____
 Accessing rail (Amtrak) or
 intercity bus service (Greyhound)? _____

8. In the course of a month, how many times do you or anyone in your household travel to the following locations?

Locations	Never	< 1 time per month	1-4 times per month	5-10 times per month	10+ times per month
Columbia College					
Jackson					
Lodi					
Modesto					
Sacramento					
Sonora					
Stockton					
Bay Area					

9. What day of the week do you typically travel to the following locations?

Locations	Monday	Tuesday	Wednesday	Thursday	Friday	Weekends
Columbia College						
Jackson						
Lodi						
Modesto						
Sacramento						
Sonora						
Stockton						
Bay Area						

10. What time of day would you typically travel to the following locations?

Locations	Morning	Midday	Afternoon	Evening	Varies
Columbia College					
Jackson					
Lodi					
Modesto					
Sacramento					
Sonora					
Stockton					
Bay Area					

11. What is your trip purpose when you travel to the following locations? Mark all that apply.

Locations	Medical	Shopping	School	Work	Airport/Bus Station	Other (write in)
Columbia College						
Jackson						
Lodi						
Modesto						
Sacramento						
Sonora						
Stockton						
Bay Area						

12. When you travel to the following locations, do you make more than one stop? How many?

Locations	1 stop only	2 stops	3 stops	4+ stops
Columbia College				
Jackson				
Lodi				
Modesto				
Sacramento				
Sonora				
Stockton				
Bay Area				

13. If you do make more than one stop, are these stops greater than two miles apart? Y N

14. Do you ever stay overnight at the following locations?

Locations	Yes	No
Columbia College		
Jackson		
Lodi		
Modesto		
Sacramento		
Sonora		
Stockton		
Bay Area		

15. If Calaveras Transit provided intercity transit service to the following locations, would you ride it? If yes, for what purpose?

Locations	Yes	No	If Yes, Trip Purpose
Columbia College			
Jackson			
Lodi			
Modesto			
Sacramento			
Sonora			
Stockton			
Bay Area			

16. Have you or anyone in your household ever used Calaveras Transit?

Person 1 Person 2 Person 3 Person 4 Person 5

17. What has prevented you or your household members from using transit service (or using it more)?
(Do not read—check all that are mentioned)

		Person				
“Have no need for it – I/we have own car(s)”	1	2	3	4	5	
“Think I’ve seen it, but don’t know how to use it”	1	2	3	4	5	
“Did not know about it.”	1	2	3	4	5	
“Doesn’t go where I need to go”	1	2	3	4	5	
Other						

This is the end of the survey. Thank you very much for your participation.

Appendix C Calaveras Transit Riders Survey

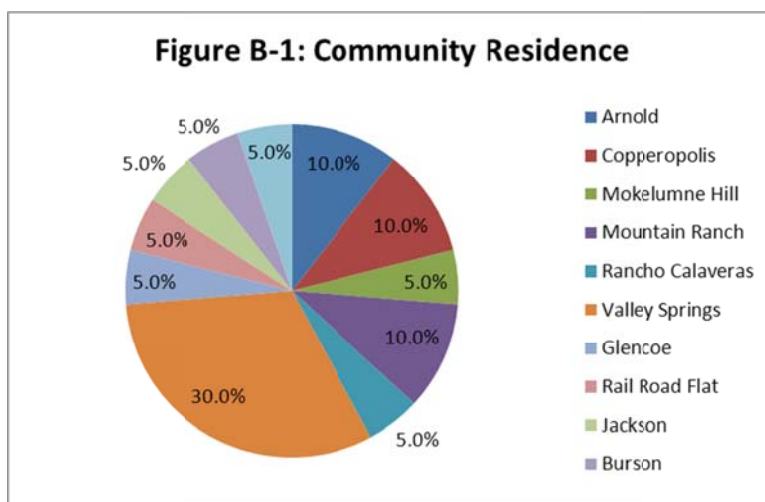
TRANSIT RIDERS SURVEY

The same survey used for the telephone and online surveys conducted throughout Calaveras County, was distributed to Calaveras Transit passengers. A total of 20 riders completed surveys. The results of these surveys are summarized below.

SURVEY FINDINGS

Background Information

- The first question asks respondents to identify their community of residence. There were 12 communities listed with an open-ended option to list another community. Out of the 20 responses, six respondents or 30 percent stated they live in Valley Springs. Two respondents each or 10 percent each identified the three communities: Arnold, Copperopolis, and Mountain Ranch. One person each identified the remaining eight residences as displayed in Figure B-1.



- In question two, respondents were asked how many people live in their household. The average respondent household had 3.25 persons. This means there are approximately 65 people to account for in the analysis of these 20 surveys.
- Question three surveyed the age of all respondents and their household members. Approximately 40 percent are age 25-54 and 25 percent are under 24 years old. Roughly 20 percent are 55-64 years of age and the remaining 15 percent are 65 or older.
- An important data point for a public transit survey is to determine the number of transit dependent persons. The respondents were asked whether they drive in question four and how many vehicles they have in question five. Approximately 55 percent of respondents and household members (35 persons) stated they do not drive.

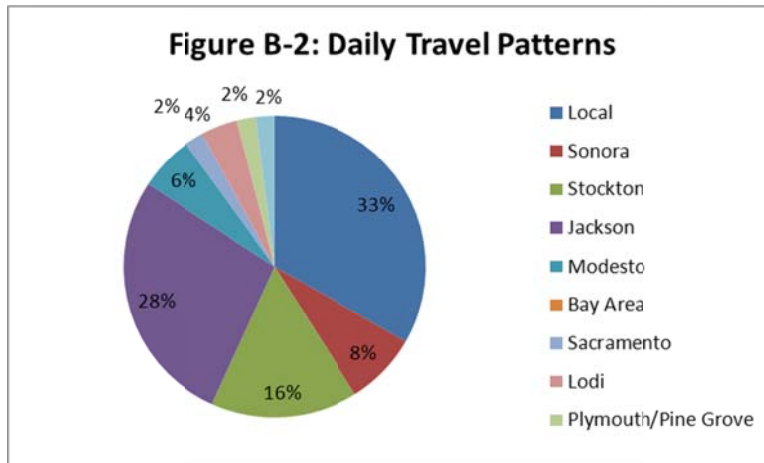
- Further, 63.2 percent of the households of the 19 respondents to this question have two or more vehicles available, another 21 percent of the households have one vehicle available. Three of the 19 respondents or 15.8 percent have no vehicles available.

Travel Patterns

- Respondents were asked in question six, to fill out the community or communities to which they travel to and from for the following activities:
 - Doctor
 - Banking
 - Food
 - Other shopping
 - Airport
 - Amtrak/Greyhound
- Respondents were asked where they travel for doctor's appointments most of the time. Some respondents noted multiple communities. Just fewer than 40 percent of respondents, the greatest proportion, identified local destinations within Calaveras County. The next greatest response for doctor's appointments was Stockton (17 percent), and Jackson (17 percent) followed by Sonora (11 percent).
- Travel for banking was equal between local and outside the county. Within the 50 percent who stated they bank outside the county, the communities selected were Stockton, Jackson, and Modesto.
- Respondents were asked where they travel for food shopping and they often identified more than one location. Local travel represented 31 percent and most often respondents stated an additional destination outside the county. A significant number travel to Jackson (44 percent) which is currently served by public transit. Another 13 percent do their food shopping in Stockton, followed by 6 percent each in Sonora and Modesto.
- Responses were mostly outside the county when asked where they travel for other shopping. The greatest responses were Stockton, Jackson and Lodi which accounted for 22 percent each. Other locations were Sonora and Lodi (11 percent each). Local destinations represented the remaining 11 percent.
- Rural intercity routes should provide access to major transportation systems such as air and rail. All the respondents who access commercial airline service travel to Sacramento. Respondents, who use Amtrak or Greyhound, access it in Stockton, Modesto, and Sacramento.

A summary of travel for the daily activities: doctor, banking, food, and other shopping, is displayed in Figure B-2. Looking at Figure B-2, daily travel pattern amongst rider respondents is most often local (33 percent). As shown in Figure B-1 above, the most common resident communities for the respondents are Valley Springs followed by Arnold, Copperopolis, and

Mountain Ranch so travel is probably most prevalent within these communities. With respect to frequency of travel to the intercity destinations, Jackson is the most common (28 percent), followed by Stockton (16 percent). Considering the pattern in residence, the most common intercity travel pattern would be between Valley Springs and Jackson.



In the next section, questions 7 through 11 of the survey, respondents were asked a series of questions in regard to timing, frequency and purpose of travel to the following destinations: Columbia College, Jackson, Lodi, Modesto, Sacramento, Sonora, Stockton and the Bay Area. The result averages are summarized in Table B-1 and explained in further detail below.

- With respect to frequency of travel to the potential intercity transit service destinations, Jackson (currently served by public transit) is the most common destination with 82.4 percent of respondents travelling there at least 1 time per month. As many as 17.6 percent travel to Jackson more than 10 times per month. Sonora and Stockton are also common destinations with more than 50 percent travelling there at least once a month.
- There is no definitive day of the week which respondents travel to intercity destinations, although weekends are more common than weekdays with Monday being the most common weekday. Respondents were allowed to answer multiple days of the week.
- Morning is the most common time of day for survey respondents to travel to all the intercity destinations reviewed although a significant number of respondents stated that it varies. Respondents were allowed to answer multiple times of the day.
- Table B-1 displays the respondent's common trip purpose when travelling to the intercity destinations. Again, respondents were allowed to select multiple purposes.
 - Columbia College – As to be expected, 83.3 percent of respondents travel there for school.
 - Jackson – Shopping is the most common trip purpose (52.4 percent of respondents) as Raley's and other large stores are accessible by Calaveras Transit here. Another 28.6 percent of respondents travel here for medical purposes as well.

Table B-1: Common Timing, Frequency and Purpose for Travel of Rider Respondents

Survey Questions 7 through 11						
	Common Travel Frequency	Common Day of Week	Common Time of Day	Common Purpose	Average Number of Stops	
Intercity Destination	Columbia College	Never	Monday Thursday	Morning Afternoon	School	1 stop
	Jackson	1+ times per month	Monday, Tuesday, Friday Weekends	Morning Varies	Medical Shopping	multiple stops
	Lodi	Never	Weekends	Morning	Shopping	2 stops
	Modesto	Never	Weekends	Varies	Varies	multiple stops
	Sacramento	<1 times per month	Weekends	Morning Varies	Shopping Airport	multiple stops
	Sonora	1+ times per month	Monday - Friday Weekends	Morning	Medical Shopping Work	multiple stops
	Stockton	1+ times per month	Monday, Wednesday Weekends	Varies	Medical Shopping Work	2 stops
	Bay Area	Never	Weekends	Varies	Varies	multiple stops

- Lodi – Shopping was the most common response, with 70 percent of respondents.
- Modesto – The responses varied for travelling to Modesto.
- Sacramento – In Sacramento, shopping and airport/bus were the most common reasons to travel (33.3 percent each).
- Sonora – Shopping (35.7 percent) and medical (28.6 percent) had the greatest responses.
- Stockton - Medical (50 percent) had the greatest response.
- Bay Area – The responses varied for travelling to the Bay Area.

In general shopping is the most common trip purpose among intercity destinations, with the exception of Columbia College.

- The number of stops respondents make at each of the intercity destinations is relevant, as it decreases the propensity to using public transit. As shown in Table B-1, a fair number of respondents indicated that they make multiple stops. In Sonora 62.5 percent make four or more stops. In Jackson, 50 percent of respondents make four or more stops. The destination with the greatest number of respondents stating that they make only one stop was Columbia College.

- Of those who make more than one stop in these intercity destinations, 78.6 percent stated that the stops are greater than two miles apart.
- A small percentage of respondents stated that they stay overnight at the intercity destinations. The Bay Area (36.4 percent) and Jackson (31.3 percent) had the greatest proportion of respondents staying overnight.

Travel Mode

Respondents were asked whether they would ride public transit and if so, for what purpose.

- The majority of respondents said they would ride public transit to the intercity destinations. The destination where the greatest number of respondent said they would take public transit was Jackson, at 85.7 percent. Sonora is another destination to which respondents are more likely to take transit (75 percent), followed by Stockton and Lodi, where roughly 60 percent would take public transit. The destinations where at least 50 percent of respondents said they would not take public transit were Columbia College, Modesto, and the Bay Area.
- Respondents were then asked why they would take public transit to these intercity destinations. The answers generally corresponded with trip purposes summarized in Table B-1. Shopping was the trip purpose that had the most responses except for Columbia College (school), Stockton (medical), and the Bay Area (family/work).

SUMMARY OF DEMAND FOR CALAVERAS INTERCITY TRANSIT SERVICES

The surveys received from Calaveras Transit passengers confirm some of the findings from the community-wide telephone and online surveys. These surveys indicate that Jackson, Stockton, and Sonora are popular destinations for intercity travel on both the weekends as well as the weekdays, especially Monday. The surveys revealed that shopping is the primary trip purpose for intercity travel, followed by medical appointments.