WESTERN EL DORADO COUNTY SHORT- AND LONG-RANGE TRANSIT PLAN

Final Report

Prepared for the

El Dorado County Transportation Commission

Prepared by

LSC
TRANSPORTATION
CONSULTANTS, INC.

LSC Transportation Consultants, Inc.

Western El Dorado County
Short- and Long-Range Transit Plan
Final Report

Prepared for the

El Dorado County Transportation Commission
2828 Easy Street, Suite 1
Placerville, California 95667
(530) 642-5262

And the

El Dorado County Transit Authority
6565 Commerce Way
Diamond Springs, California 95619
(530) 642-5383

Prepared by

LSC Transportation Consultants, Inc.
2690 Lake Forest Road, Suite C
P.O. Box 5875
Tahoe City, California 96145
(530) 583-4053

July 11, 2014

LSC 137390

WESTERN EL DORADO COUNTY SHORT AND LONG-RANGE TRANSIT PLAN
Executive Summary

Prepared for the El Dorado County Transportation Commission

Prepared by LSC Transportation Consultants, Inc.

The El Dorado County Transportation Commission (EDCTC) retained LSC Transportation Consultants, Inc., to prepare a 2035 Long Range Transit Plan and a 5-Year Short Range Transit Plan to improve and enhance public transit services. This plan has been developed in two time-frames: a short-range plan encompassing Fiscal Years 2014-15 through 2018-19, and a long-range plan extending to 2035.

As part of the study, a series of three meetings were held with a Stakeholder Advisory Committee, made up of a wide range of transit riders, public officials, and members of the general public from throughout the region. In addition, public workshops were held in El Dorado Hills as well as Placerville, and surveys conducted at social service agencies.

This plan document first presents and reviews the characteristics of the study area, including demographic factors. A thorough review of existing land use and transportation plans is then presented. The operating history of the transit services provided in the study area is then reviewed, and demand for transit services in the study area evaluated. Finally, a detailed, financially constrained Short Range Transit Plan is presented for the future improvement of El Dorado County Transit Authority (EDT) services, as well as a more generalized Long Range Transit Plan.

Study Area

This study considers the portion of El Dorado County to the west of the Sierra Crest. Population of the area was identified by the 2010 U.S. Census as 148,614. Of this total, 14 percent was elderly (age 65 or above), 2 percent was mobility-limited, and 6 percent were low-income. A total of 732 households (3 percent of the total) did not have a car. Sacramento Council of Governments (SACOG) projections identify future population growth of 26 percent by 2035. Growth is forecast to be much higher among seniors, with the population age 65 and above expected to increase by 156 percent by 2035.

Existing Transit Services

Western El Dorado County transit services are provided through a joint powers agreement between the County of El Dorado and City of Placerville. The EDT is governed by a five-member Board of Directors. Existing services include local fixed-routes (Placerville, Pollock Pines, Diamond Springs, and Cameron Park), the Iron Point Connector providing service to Folsom, Commuter Services to downtown Sacramento, the Grizzly Flat flex-route service, Dial-A-Ride, Sac-Med Non-Emergency Medical Appointment Transportation, and contract services, as well as a County Fair shuttle. Systemwide ridership for Fiscal Year 2012-13 on all EDT services was 414,304 one-way passenger-trips, an increase of 62 percent over Fiscal Year 1998-99.

Other transit providers serving the area consist of the Senior Shuttle, United Cerebral Palsy, and private taxi, airport shuttle and limo services. Several entities also organize volunteer transportation services, including PAVES, the Vision Coalition, Snowline Hospice, Marshall Medical Center and the Gates Recovery Foundation. The area is also served by Amtrak Thruway bus service as part of the route between Sacramento and Stateline, Nevada.

Short-Range Plan

Short-Range Service Plan

- ☐ **Establish a Taxi Voucher Program in El Dorado Hills** – This is recommended to provide subsidized trips in the El Dorado Hills area using existing taxi operator or operators. An initial cost for vouchers is recommended at a one-way fare of $3.00 for ADA-eligible passengers and $6.00 for the general public, though these rates could be reduced depending on demand levels. Vouchers would be valid for travel between 7:00 AM and 10:00 PM. It addresses the fact that fixed route service is not feasible in the area, and would also provide valuable local experience in this form of transit service.

- ☐ **Establish 50 Express Service and Increased Cameron Park Service** – The existing Iron Point Connector service should be modified to provide service from Missouri Flat to Folsom every two hours throughout the day, including service to the El Dorado County Government Center as well as the Folsom campus of Folsom Lake College. The existing Cameron Park Route should be modified to provide hourly service within Cameron Park throughout the day, providing direct transfers to the 50 Express Service at Cameron Park Place as well as new service to Durock Road. Overall, this plan expands transit service to new areas, increases service frequency along the US 50 corridor, and greatly improves transit service within Cameron Park.

- ☐ **Provide El Dorado Hills Wednesday Activity Bus (Demonstration Program)** – A one-day-a-week (Wednesday) demand-response van should be made available for travel in the El Dorado Hills area. It will only operate if five or more trip requests per day are received. If after one year at least 2.0 passengers per vehicle-hour are not served, this element may be modified or eliminated.

- ☐ **Improve Placerville Route On-Time Performance** – Route running time should be reduced by eliminating several request stops, converting the Coloma Court stop to a request stop mid-day, and relocating the Raley's stop. These changes are needed to address existing late runs.

- ☐ **Designate Additional Stops on the Pollock Pines Route** – Bus stop signs should be installed at five existing flag stops in the Camino and Pollock Pines area to provide for more consistent service and a higher awareness of transit services.

- ☐ **Extend Weekday Hours of Service** – One additional hour of service should be added at the end of the existing service day on the Placerville, Pollock Pines and Diamond Springs Routes, as well as the Complementary Paratransit Service. This would, in particular, increase the ability of El Dorado County residents to access jobs via transit.

- ☐ **Start Weekday Diamond Springs and Placerville Routes Earlier** – 6:00 AM runs should be added on these routes, and Complementary Paratransit service offered starting at 6:00 AM. This would expand access to work and social service programs.

- ☐ **Expand Saturday Local Route Service** – Saturday Express runs should be added at 12:00 Noon and 4:00 PM eastbound and at 12:00 Noon and 8:00 AM westbound, and Saturday service should be initiated on the Diamond Springs Route from 9:00 AM to 5:00 PM.

- ☐ **Improve Transit Services to El Dorado County Offices** – Various service elements will improve access to and between key El Dorado County social service and transitional housing sites. In particular, the provision of Cameron Park service to Durock Road and 50 Express service to El Dorado County Government Center will aid access by clients.

☐ **Reduce Sacramento Commuter Runs to Rodeo Lot** – By reducing the number of daily runs serving this lot from eight to four, through passengers would be provided by a quicker trip and operating costs would be reduced, with minimal impact on existing Rodeo Lot passengers.

☐ **Expand Dial-A-Ride Service** – Up to an additional 6 vehicle service-hours of Dial-A-Ride service should be provided per weekday to meet growth in demand. The daily vehicle service hours should be allocated by operations staff depending upon anticipated needs and observed operating patterns.

☐ **Additional Financially Unconstrained Service Enhancements** – If additional funds become available, the following improvements could be implemented:

- Jointly operated transit service connecting western El Dorado County and South Lake Tahoe
- Weekly Georgetown / Cool / Pilot Hill Service to Auburn
- Hourly Service on the 50 Express Route
- Additional AM and PM Sacramento Commuter Runs
- Saturday Express runs at 8:00 AM eastbound and 4:00 PM westbound

Short-Range Capital Plan

☐ **Fleet Replacement and Expansion** – A total of 33 vehicles will need to be acquired over the coming five years: 32 for replacement of existing vehicles and 1 for expansion of services. EDT should research the feasibility of low-floor buses, which could ease passenger boarding, simplify wheelchair boardings, and reduce route travel time. Buses should continue to be powered by clean diesel technology, though innovations in fuels should be monitored. EDT should develop a policy to make older vans available to social service programs as they are retired from the public transit fleet.

☐ **Improvements at the EDT's Administration / Maintenance Center** – EDT should make a wide range of improvements to the current facility in Diamond Springs, including enhanced administrative space, training facilities, and maintenance facilities. This facility will continue as the sole transit operations facility serving the region.

☐ **Improvements to the Existing Missouri Flat Transfer Center** – The existing transit facility on Missouri Flat Road should be improved by extending the length of bus bay, expanding shelter capacity, and improving seating, landscaping and lighting.

☐ **Cameron Park Transit Center** – A modest facility should be developed in Cameron Park to accommodate transfers between the Cameron Park and 50 Express Routes.

☐ **Signal Pre-Emption / Jump Queue Lanes** – EDT should apply for grant funds for a focused study regarding the potential for improvements to traffic signals and turn lanes to speed transit operations at key locations where the number of bus movements is relatively high.

☐ **Expand Park-And-Ride Facilities** – EDT will provide funding for completion of the Ray Lawyer Drive Park-and-Ride, and should conduct studies regarding long-term enhancements to facilities in El Dorado Hills. EDT should also continue coordinated efforts to improve facilities near Cameron Park Road, Cambridge Road, and Bass Lake Road.

☐ **Continue to Improve Bus Stop Amenities** – EDT should continue to enhance other bus stops, include shelters at a minimum of nine new locations.

- **Bicycle/Pedestrian Facilities** – EDT should continue to work with El Dorado County and the other jurisdictions in the region to review construction plans and schedule priorities for pedestrian and bicycle improvements to best coordinate with transit passengers' needs.

- **Implement Advanced Public Transit System Technologies** – This will include full implementation of the Connect Card regional fare program, improvements to mobile data terminals on the buses, real-time traveler information available via the internet, and automated stop announcements.

- **Wi-Fi on Commuter Buses** – Wi-Fi should be installed on EDT commuter buses, with ongoing costs paid by the users.

- **Use of EDT Capital Assets for Tahoe Region Access** – EDT should consider any future proposals to use park-and-ride lots as part of plans to expand transit options serving the Lake Tahoe Region.

Short-Range Institutional and Management Plan

- **Revised Transit Performance Measures** – The plan document includes updated performance measures that should be considered for adoption.

- **Improve Marketing Efforts** – These should be developed in detail through a separate marketing study currently underway, including improvements to web information and social media strategies.

Short-Range Financial Plan

- **Offer a Daypass on Local Routes** – A daypass ($3 general public / $1.50 discount) is recommended to enhance the 50 Express / Cameron Park Route changes, and also encourage additional ridership among passenger making transfers at Missouri Flat. An additional fare should be charged for service to Folsom. Impacts on overall revenues would be modest. No other changes in fares (such as fare increases) are included in this plan.

- **Participate in Regional Connect Card Pass Program** – This will aid EDT passengers making connections to other services in Folsom and Sacramento.

- **Rely on Existing Subsidy Sources** – The service and capital improvements in the short-range plan will be funded through existing revenues sources, including transit fares, Transportation Development Act funds, Federal Transit Administration programs, Congestion Mitigation and Air Quality funds, Air Pollution Fees, California proposition fees, advertising revenues and interest. No new revenues sources are required to support the plan. The Financial Plan yields positive fund balances through the five-year short range planning period, as well as an increase in capital reserve funds.

Long Range Plan

The demand for transit service is forecast to increase with population growth, aging of the population, development, and increasing costs of operating private motor vehicles. While the demand for commuter service to downtown Sacramento is not forecast to change significantly, by 2035 overall demand for EDT services is forecast to increase by 47 percent. In particular, demand for social service and ADA transportation is forecast to increase by 60 percent, and demand for rural elderly/disabled service by 86 percent.

Long Range Service Plan

- ☐ Continuation of **Dial-A-Ride services,** as augmented to address increases in population and changing mobility needs of the region.

- ☐ Hourly service on the **50 Express Route**.

- ☐ Revisions to **Local Routes** to serve new development as demand warrants.

- ☐ Half-hourly service on **Local Routes** as funding allows and demand warrants.

- ☐ Revision in **Commuter and Local Route** schedules to take advantage of new high-occupancy lanes, transit signal pre-emption, and jump-queue lanes.

- ☐ Coordination with **services serving Folsom and southeast Sacramento County.**

Service expansion, as well as growth in demand for existing services, is forecast to increase overall system ridership by 26 percent over current levels by 2025, and by 42 percent by 2035.

Long-Range Capital Plan

- ☐ By 2025, the **EDT fleet** will increase to approximately 65 vehicles (excluding non-revenue vehicles). Eighteen additional vehicles will be required: ten for expansion of Dial-a-Ride and social service transportation, seven for expansion of local routes, and one for expansion of US 50 service.

- ☐ **Appropriate innovations in advanced communications, signal pre-emption and fare technologies** should be implemented throughout the EDT system as warranted.

- ☐ **Park-and-Ride facilities** should be expanded as warranted by changes in travel demand, with a focus on the El Dorado Hills and Cameron Park areas.

- ☐ The existing **EDT Administrative/Maintenance Facility** should continue to be the operational base for the system, with improvements as needed to accommodate expansion in staff and fleet size. With improvements, this site has capacity to accommodate the transit program through 2035.

- ☐ The primary **passenger facilities** for the Local Routes will be the Missouri Flat Transit Center, Placerville Station, and Cameron Park Transit Center.

- ☐ EDT should continue to upgrade **passenger amenities** at bus stops, as warranted by passenger boarding activity.

Long-Range Institutional / Management Plan

- ☐ EDT will remain the appropriate **institutional form** for provision of transit services.

- ☐ EDT should actively **coordinate services** with other public transit organizations in the greater Sacramento Region, particularly those services along the US 50 corridor and Southeast Connector corridor.

- ☐ EDT should keep pace with **changes in technologies and social media** that enhance transit operations and ridership.

The long-range financial plan incorporates existing funding sources. As appropriate to address changes in operating costs, fare increases may be necessary. No new local transit funding source is forecast to be necessary to achieve this long-range plan.

TABLE OF CONTENTS

LIST OF TABLES

Table **Page**

LIST OF FIGURES

Figure **Page**

Chapter 1
Introduction

The western slope of El Dorado County is comprised of nearly a dozen communities, from very small isolated communities, to larger communities along the Highway 50 Corridor. The mix of urban and rural areas, some with easy freeway access, and others with hilly narrow mountain roads, and still others with suburban or low density development, makes providing transit a challenge. Nonetheless, El Dorado Transit has provided a successful transit program which strives to meet the varied needs of Western El Dorado County by providing a combination of local fixed route service, commuter service, dial-a-ride service and medical transportation. These services improve the quality of life for El Dorado County residents while also helping to address traffic congestion problems along the US 50 corridor.

The El Dorado County Transportation Commission (EDCTC) has initiated a Short-and Long-Range Transit Plan process in order to consider the impacts of the changing Western El Dorado County and how these changes will impact the near-term and long-term transit needs within the region. This plan will focus upon two key goals. On one level, the plan will yield a detailed, year-by-year short-range implementation plan to improve and enhance transit services. On another level, the study will provide a long-term (25-year) strategy for developing transit plans that support and enhance larger goals regarding transportation and land use.

The short-range element will focus on concrete implementable steps towards the long-range vision for public transit services. This element of the overall study will focus on immediate transit service issues, such as route and scheduling modifications, current unmet service needs, and year-by-year capital improvements, including facilities for non-motorized transportation. It will also provide a financially-constrained plan for achieving transit goals.

The primary focus of the long-range element is to identify long-range strategies for public transportation in Western El Dorado County that are consistent with land use, transportation, and air quality plans, and a series of implementation steps to achieve these strategies. This was accomplished through a review of existing long-range plans, an evaluation of demographic forecasts, analysis of the regional traffic model, data collection, and preparation of alternative service strategies. Another key requirement of the long-range study is to ensure that it is financially constrained – that the operating and capital costs of the plan can be met by future foreseeable funding levels.

The first several chapters of this report present a review of the setting for transit services such as demographic and employment conditions in Western El Dorado County, as well as a detailed analysis of current services being provided, and an evaluation of current goals and objectives for the El Dorado County Transit Authority (El Dorado Transit). Also included is an evaluation of overall demand for transit services in the region, both short term and long term. For an understanding of long range effects of development and travel patterns on transit, the SACMET Regional Travel Demand Forecasting Model and the El Dorado County Travel Demand Forecasting model has been evaluated along with land use plans, and projected population and employment growth. The SACMET Regional Travel Demand Forecasting Model has been utilized

for transit forecasting to and from areas outside El Dorado County, and the El Dorado County Travel Demand Forecasting model has been used to forecast trips within the county.

KEY STUDY ISSUES

This study is being conducted with the guidance of the El Dorado County Transportation Commission (EDCTC) and El Dorado Transit (EDT) staff, and with input from a Stakeholders Advisory Committee (SAC). The SAC is comprised of members of the Social Services Transit Advisory Committee (SSTAC), local government representatives, social service agency representatives and community activists. These groups convened at a kick-off meeting and identified issues they believe are important to address in this study, as described below.

Short Term Issues

Current issues focus on operational and near-term capital needs, including the following:

- Needs for transit services are increasing, due to growth, development, and changes in demographics. In particular, the need for senior transportation is increasing as County residents "age in place." This trend impacts demands both within the study area, as well as to Sacramento and Placer Counties.

- Service was cut in 2009 due to economic constraints, and these services are a priority to reinstate.

- Review El Dorado Transit role as the Consolidated Transportation Services Agency for Western El Dorado County.

- Conduct a Dial-A-Ride zone service assessment.

- Expansion of services to new areas needs to be considered, both for areas currently developed but unserved (such as El Dorado Hills) as well as newly developing areas. Other areas (such as Cameron Park) are also currently underserved.

- Rural transit needs are expanding, and new services merit consideration, including services to the northern portion of the county as well as to/from the Tahoe Region.

- Changes to the deviated fixed route program need to be considered.

- Changes in fare policies need to be considered, in order to keep services affordable, enhance the usability of the system and to attain performance standards in light of the expanding pattern of transit trips.

Long Range Issues

While the primary goal is to determine the transit needs and how they can best be addressed over the next twenty years, a number of issues are being closely evaluated in this study, including the following:

- Long Range Ridership Demand Forecast: The long-range forecast for transit needs and service quantities need to be determined based on current needs and planned developments, including subdivision developments, commercial development, and etcetera.

- Role of Transit: The appropriate role of transit service in western El Dorado County is considered in this study, identifying how transit can be used to achieve mobility, land use, and air quality goals.

- Capital and Infrastructure Needs: As El Dorado County continues to grow and develop, the infrastructure related to providing transit services needs to be considered. In particular, what will be the impact of urbanization at the western border of the County? Is the current operations facility appropriate for the long-term, or will a second facility be necessary to meet the growing needs of El Dorado Hills and Cameron Park? Are enhanced forms of transit (such as Bus Rapid Transit or Light Rail) appropriate? Additionally, the fleet size and type needs to grow to be responsive to regional mobility needs while also addressing air quality concerns. A long-term capital and infrastructure plan will be a key focus of this study.

- Development and roadway projects in Sacramento County will increase the need for transit services between El Dorado and Sacramento Counties. The appropriate role of El Dorado Transit in addressing these demands needs to be established.

These issues provided guidance for the direction of the study.

A glossary of acronyms and technical terms is provided at the end of this document.

This page left intentionally blank.

Chapter 2
Study Area Characteristics

STUDY AREA

El Dorado County is located in the Gold Country of California, stretching from the Central Valley east of Sacramento up to the peaks of the Sierra Nevada. Much of the terrain consists of the ridges and valleys of the Western Slope. This study considers the western slope of El Dorado County (west of the Sierra Crest) including Placerville, Cameron Park, El Dorado Hills, Pollock Pines, and Diamond Springs, as well as smaller communities, herein referred to as "Western El Dorado County". The City of Placerville is the County seat and is the only incorporated town within the study area.

Western El Dorado County (excluding the Tahoe Basin) is approximately 1.1 million acres in size. The study area is presented in Figure 1. Part bedroom community, part idyllic rural community, and also a tourist destination, Western El Dorado County is a desirable location to live and visit, and has experienced residential and tourism growth in recent years. In particular, the area's proximity to employment opportunities in Sacramento County has generated substantial suburban growth in the western portion of the County.

The major arterial east/west access is provided by US Highway 50 (US 50), connecting the area with Sacramento to the west and South Lake Tahoe and Carson City, Nevada to the east. North/south highway access to the area is provided by Highway 49, connecting the area with Auburn to the northwest and Sonora to the southeast. State Route 193 provides northern access to Georgetown.

POPULATION

Historical Population and Projections

A key factor regarding future trends in transit need is change in population. The relatively undeveloped character of the county, coupled with the study area's proximity to the Sacramento area, has resulted in substantial population growth. As shown in Table 1, the high rate of growth between 1990 and 2000 (2.2 percent per year) moderated somewhat during the decade from 2000 to 2010 (1.4 percent per year), but growth is expected to increase in the future. As presented in the Sacramento Council of Government's (SACOG's) 2035 Metropolitan Transportation Plan and shown in Table 2, overall growth is forecast to remain roughly constant at this more moderate level. Between 2013 and 2018, annual growth is forecast to increase by 1.4 percent per year, dropping slightly to 1.3 percent per year for the long-term planning period from 2018 to 2035. These rates still result in substantial growth, adding an additional 12,745 Western El Dorado County residents between 2013 and 2018 and an additional 30,200 by 2035 (a 24 percent overall increase).

Table 2 and Figure 2 also provide a picture of the relative expected growth in various portions of the study area:

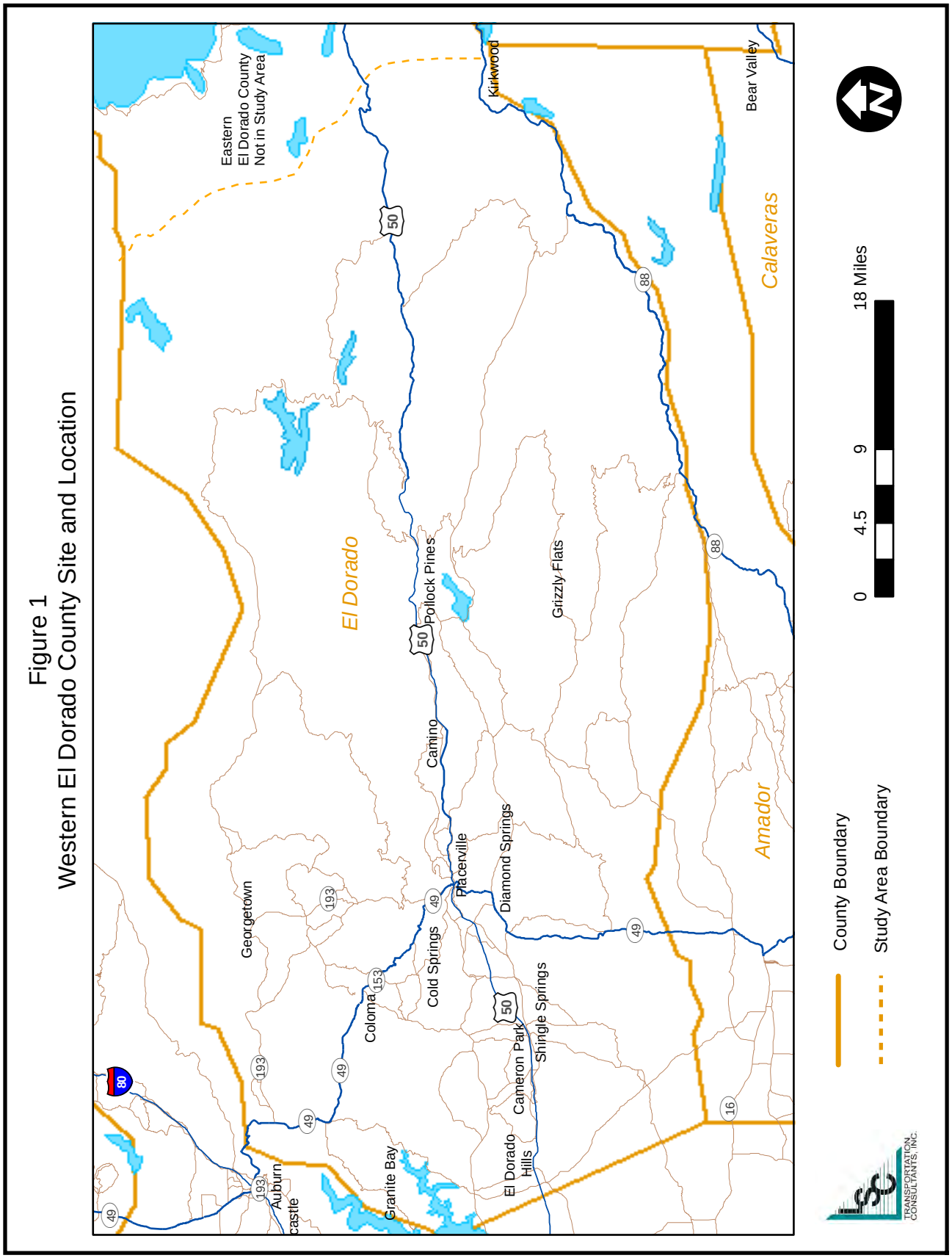


Figure 1
Western El Dorado County Site and Location
Eastern
El Dorado County
Not in Study Area
Kirkwood
Bear Valley
El Dorado
Calaveras
Amador
Pollock Pines
Camino
Placerville
Diamond Springs
Grizzly Flats
Georgetown
Cold Springs
Coloma
Cameron Park
Shingle Springs
El Dorado Hills
Granite Bay
Auburn
50
49
193
153
88
16
80
0
4.5
9
18 Miles
County Boundary
Study Area Boundary
TRANSPORTATION CONSULTANTS, INC.

TABLE 1: El Dorado County Historic Population

	1970	1980	1990	2000	2010
El Dorado County Population	43,833	85,812	125,995	156,299	181,058
Annual Percent Growth	–	6.9%	3.9%	2.2%	1.5%
Over Previous 10 Years	–	95.8%	46.8%	24.1%	15.8%
California Population	19,953,134	23,667,902	29,760,021	33,871,648	37,253,956
Annual Percent Growth	–	1.7%	2.3%	1.3%	1.0%
Over Previous 10 Years	–	18.6%	25.7%	13.8%	10.0%

Source: U.S. Census Bureau, 1970 to 2010

- Growth will largely occur in the US 50 corridor west of Placerville to the Sacramento County Line, where fully 88 percent of population growth is expected. In particular, population growth is forecast for the El Dorado Hills area (15,848 additional residents, or 43 percent of area wide growth) and Cameron Park/Shingle Springs (13,424 additional residents, or 37 percent of area wide growth).

- An additional high-growth area is Diamond Springs, where population is forecast to grow by 24 percent (2,834 residents). The Placerville area will also see modest growth (16 percent, or 3,436 persons).

Figure 2 depicts the relative population in each area of the county. As discussed below, El Dorado County has developed other growth forecasts, which are consistent with other planning efforts within the county. Accordingly, the SACOG forecasts of growth within El Dorado County were not used to assess future transit needs within El Dorado County.

Transit Dependent Population

Nationwide, transit system ridership is drawn largely from various groups of persons who make up what is often called the "transit dependent" population. This category includes elderly persons, persons with disabilities, low-income persons and members of households with no available vehicles. There is considerable overlap among these groups.

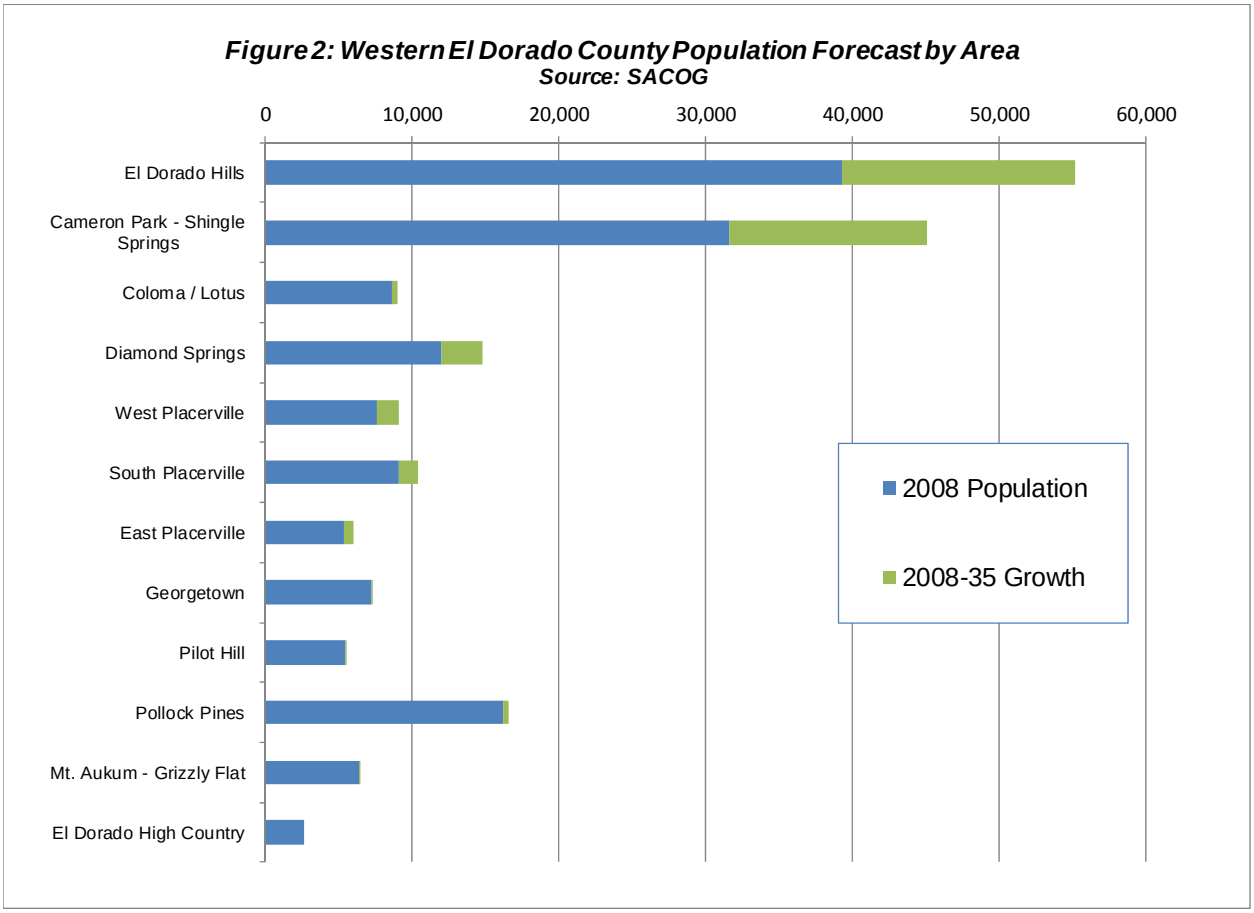
Table 3 presents the transit dependent population by census tract in Western El Dorado County from the 2010 U.S. Census data[1]. Figure 2 presents the census divisions in the study area. There was an estimated 21,316 persons aged 65 or over residing in Western El Dorado County, comprising 14.3 percent of the total population. The percentage of elderly persons was distributed fairly evenly throughout Western El Dorado County, although larger concentrations were found in the eastern Cameron Park/Shingle Springs, Greenwood, Deer Park and South Missouri Flat areas. This information is presented graphically in Figure 3.

[1] As disabilities questions were dropped from the 2010 Census, 2010 data on proportion of population with disability were applied to 2010 total population figures to estimate 2010 population with mobility limiting disabilities.

TABLE 2: Western El Dorado County Population Projections 2013-2035

Area	Estimated/Forecast Population 2008	Estimated/Forecast Population 2035	Growth #	Growth %	Average Annual Growth	% of Total Growth
El Dorado Hills	39,276	55,124	15,848	40%	1.3%	43%
Cameron Park – Shingle Springs	31,593	45,017	13,424	42%	1.3%	37%
Coloma – Lotus	8,609	8,956	347	4%	0.1%	1%
Diamond Springs	11,958	14,792	2,834	24%	0.8%	8%
West Placerville	7,598	9,098	1,500	20%	0.7%	4%
South Placerville	9,072	10,395	1,323	15%	0.5%	4%
East Placerville	5,350	5,963	613	11%	0.4%	2%
Georgetown	7,219	7,303	84	1%	0.0%	0%
Pilot Hill	5,391	5,524	133	2%	0.1%	0%
Pollock Pines	16,182	16,547	365	2%	0.1%	1%
Mt. Aukum – Grizzly Flat	6,364	6,487	123	2%	0.1%	0%
El Dorado High Country	2,641	2,637	-4	0%	0.0%	0%
El Dorado County Total (1)	151,253	187,843	36,590	24%	0.8%	100%
Subtotals						
US 50 Corridor West of Placerville	*82,827*	*114,933*	*32,106*	*39%*	1.2%	*88%*
Placerville Area	*22,020*	*25,456*	*3,436*	*16%*	0.5%	*9%*
North County	*21,219*	*21,783*	*564*	*3%*	0.1%	*2%*

Note 1 Excludes Tahoe Basin
Source: SACOG 2035 MTP



The U.S. Census Bureau defines “mobility limited” as persons having a health condition lasting more than six months that makes it difficult to go outside the home alone. It is estimated there were 3,115 mobility-limited persons in Western El Dorado County in 2000, which comprised 21.2 percent of the study area population. In comparison, the statewide average was 5.1 percent. The Northwest Placerville area had the greatest concentration of mobility-limited persons within the study area, along with the Cameron Park area. This information is presented graphically in Figure 4.

Low-income persons are another likely market for transit services, as measured by the number of persons living below the poverty level (determined by applying one or more of 48 thresholds defining poverty). An estimated 9,289 low-income persons reside in the study area, representing 6.3 percent of the total Western El Dorado County population. The concentration of those below poverty status was highest in the Placerville area and South Missouri Flat areas. See Figure 5 for details.

Another key indicator of need for transit service is the number of households without access to an operable vehicle. In 2010, 1,536 households reported that they did not have a car, equal to 2.7 percent of all households. Paralleling the low-income pattern, zero vehicle households were concentrated in the Placerville area and South Missouri Flat area, though it is worth noting that there are households without a car virtually throughout the entire study area. See Figure 6 for a graphic representation.

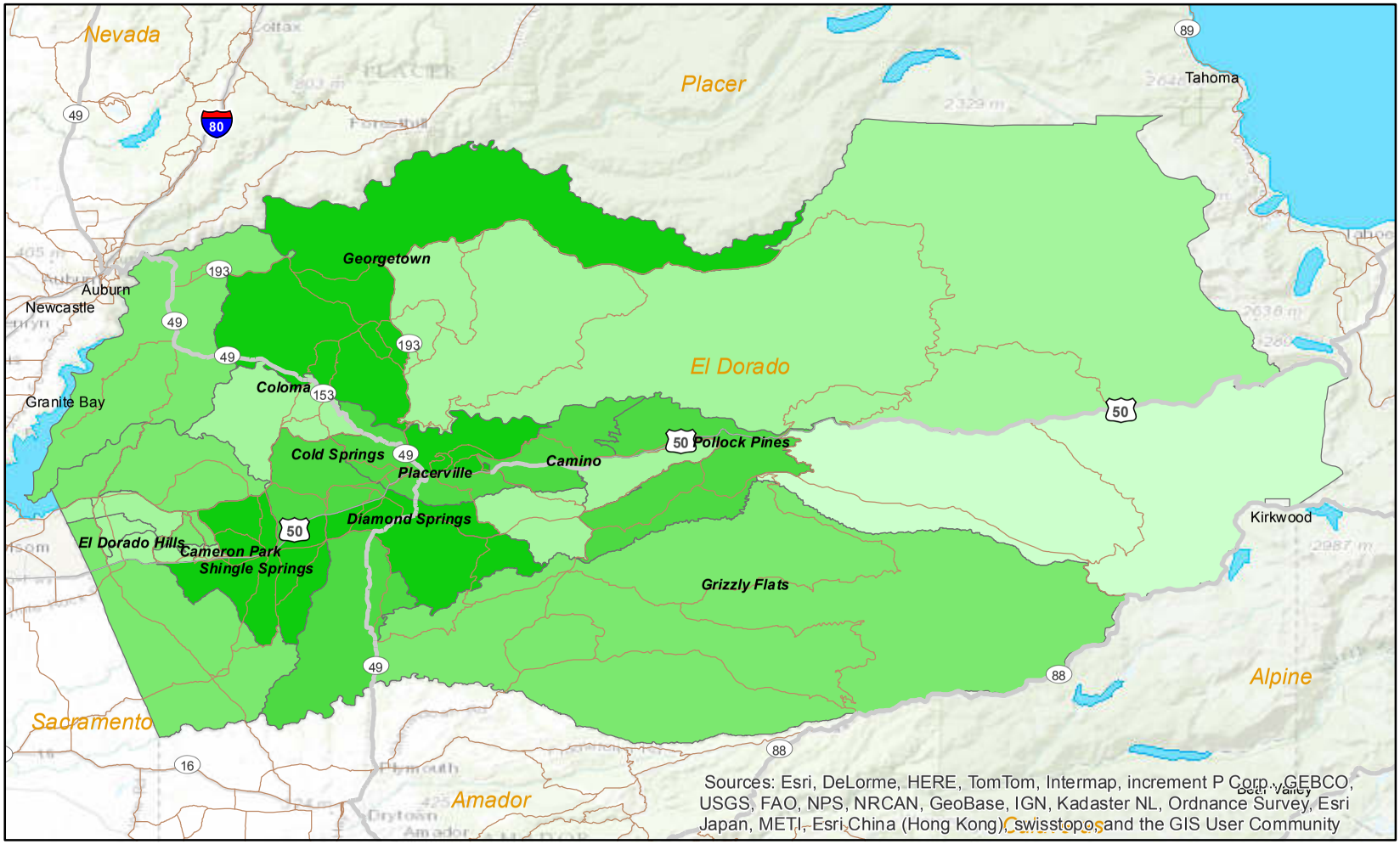
TABLE 3: Western El Dorado County 2010 Demographic Characteristics by Census Tract

			Youth (5-15 Yrs)		Senior (65 & Over)		Mobility Limited [1,2]		Low Income			Households	
Census Tract	Description	Total Population	#	% of Census Tract	#	% of Census Tract	#	% of Census Tract	#	% of Census Tract	Total Households	#	% of Census Tract
306.01	Pilot Hill / Cool	5,113	752	14.7%	690	13.5%	97	1.9%	238	4.7%	2,000	10	0.5%
306.02	Greenwood / Garden Valley	6,492	935	14.4%	1,013	15.6%	130	2.0%	432	6.7%	2,500	14	0.6%
306.03	North Central County	2,971	392	13.2%	514	17.3%	51	1.7%	177	6.0%	1,302	49	3.8%
307.01	Lakeridge Oaks	6,629	1,306	19.7%	696	10.5%	13	0.2%	199	3.0%	2,208	50	2.3%
307.04	South El Dorado Hills/ Latrobe	5,674	885	15.6%	749	13.2%	57	1.0%	220	3.9%	2,197	43	2.0%
307.06	West El Dorado Hills	6,118	1,095	17.9%	716	11.7%	98	1.6%	56	0.9%	2,250	0	0.0%
307.09	Green Springs Ranch	5,039	1,129	22.4%	343	6.8%	40	0.8%	28	0.6%	1,566	25	1.6%
307.10	Northeast El Dorado Hills	4,831	966	20.0%	440	9.1%	39	0.8%	136	2.8%	1,676	8	0.5%
308.01	Deer Valley / Rescue	3,989	674	16.9%	586	14.7%	176	4.4%	79	2.0%	1,396	25	1.8%
308.03	East Cameron Park	7,089	1,333	18.8%	1,120	15.8%	206	2.9%	383	5.4%	2,614	57	2.2%
308.04	Shingle Springs / Frenchtown	6,201	713	11.5%	1,005	16.2%	143	2.3%	583	9.4%	2,252	52	2.3%
308.07	Southwest Cameron Park	4,097	406	9.9%	459	11.2%	107	2.6%	176	4.3%	1,573	42	2.7%
308.08	Northwest Cameron Park	7,248	1,435	19.8%	674	9.3%	188	2.6%	297	4.1%	2,513	27	1.1%
308.09	South Central Cameron Park	2,430	321	13.2%	372	15.3%	22	0.9%	221	9.1%	987	17	1.7%
308.10	North Central Cameron Park	3,001	384	12.8%	537	17.9%	27	0.9%	214	7.1%	1,406	83	5.9%
309.01	Coloma / Lotus Area	2,927	416	14.2%	386	13.2%	9	0.3%	83	2.8%	1,082	17	1.6%
309.02	N.Greenstone / Missouri Flat Area	4,974	567	11.4%	836	16.8%	104	2.1%	80	1.6%	1,853	41	2.2%
310	Northwest Placerville	5,629	507	9.0%	816	14.5%	253	4.5%	711	12.6%	2,233	142	6.4%
311	North Placerville	5,673	703	12.4%	964	17.0%	23	0.4%	954	16.8%	2,302	157	6.8%
312	South Placerville	5,207	708	13.6%	901	17.3%	187	3.6%	570	10.9%	1,794	115	6.4%
313.01	Smith Flat / Camino	3,221	306	9.5%	844	26.2%	71	2.2%	385	12.0%	1,304	12	0.9%
313.02	N. Pollock Pines / Cedar Grove	5,046	666	13.2%	817	16.2%	146	2.9%	618	12.2%	2,035	53	2.6%
314.02	Somerset / Mt. Aukum	5,098	867	17.0%	627	12.3%	189	3.7%	225	4.4%	2,155	82	3.8%
314.04	New Town / Old Fort Jim	2,453	334	13.6%	348	14.2%	71	2.9%	60	2.4%	886	0	0.0%
314.05	Rancho del Sol / Gold Ridge	2,378	262	11.0%	361	15.2%	45	1.9%	146	6.1%	990	20	2.0%
314.06	Fresh Pond / Pleasant Valley	5,698	627	11.0%	883	15.5%	131	2.3%	539	9.5%	2,066	39	1.9%
315.02	South Missouri Flat Area	6,149	984	16.0%	1,156	18.8%	184	3.0%	739	12.0%	2,474	213	8.6%
315.03	Kingsville / Nashville	2,679	271	10.1%	798	29.8%	83	3.1%	171	6.4%	1,171	36	3.1%
315.04	Deer Park Area	5,211	813	15.6%	1,011	19.4%	130	2.5%	187	3.6%	2,156	76	3.5%
317	Northwest El Dorado Hills	2,655	738	27.8%	244	9.2%	42	1.6%	82	3.1%	892	18	2.0%
318	Southeast El Dorado Hills	6,637	1,374	20.7%	405	6.1%	53	0.8%	300	4.5%	2,071	13	0.6%
319	Southeast County	57	0	0.0%	4	7.0%	0	0.0%	0	0.0%	34	0	0.0%
Total Western El Dorado County		148,614	22,866	15.4%	21,316	14.3%	3,115	2.1%	9,289	6.3%	55,938	1,536	2.7%
Total El Dorado County in Tahoe Basin		30,439	3,686	12.1%	3,200	10.5%	Note [2]	*Note [2]*	4,714	15.5%	12,456	732	5.9%
Total Countywide		179,053	26,552	14.8%	24,516	13.7%	Note [2]	*Note [2]*	14,003	7.8%	68,394	2,268	3.3%

Note 1: The number of Mobility Limited Persons is estimated based on data from the 2000 census, which are the most recent data available.
Note 2: The Mobility Limited Population statistics are not provided for the census tracts in the Lake Tahoe Basin.
Source: US Census 2006 - 2010 American Community Survey

El Dorado Census data.xlsx

Figure 3
Western El Dorado County Senior Population by Census Tract



Total Population Per Census Tract

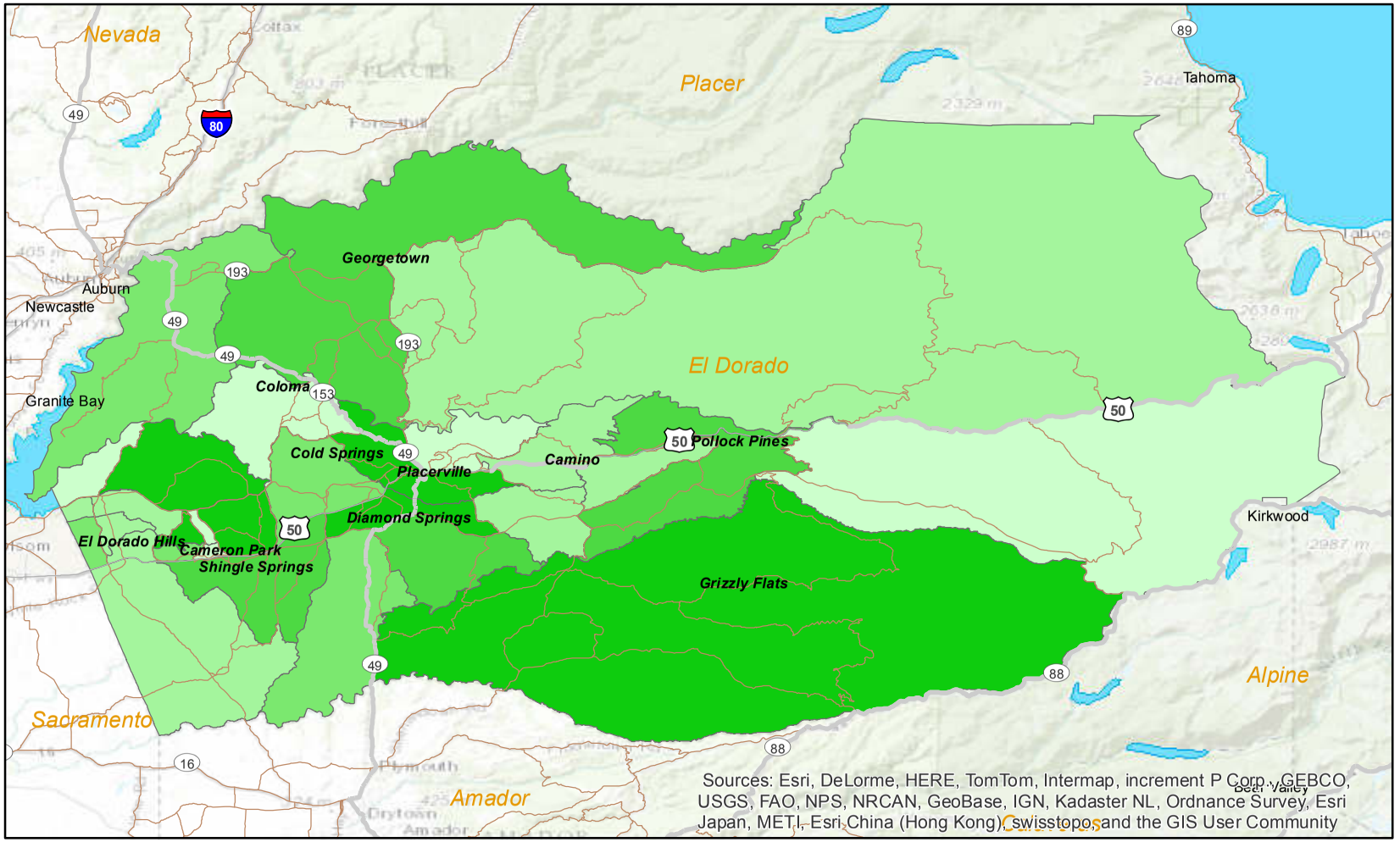
- 0 - 4
- 5 - 514
- 515 - 749
- 750 - 901
- 902 - 1156

TRANSPORTATION CONSULTANTS, INC.

0 5 10 20 Miles

Source: 2010 Census

Figure 4
Western El Dorado County Mobility Limited Population by Census Tract



Total Mobility Limited Population by Census Tract

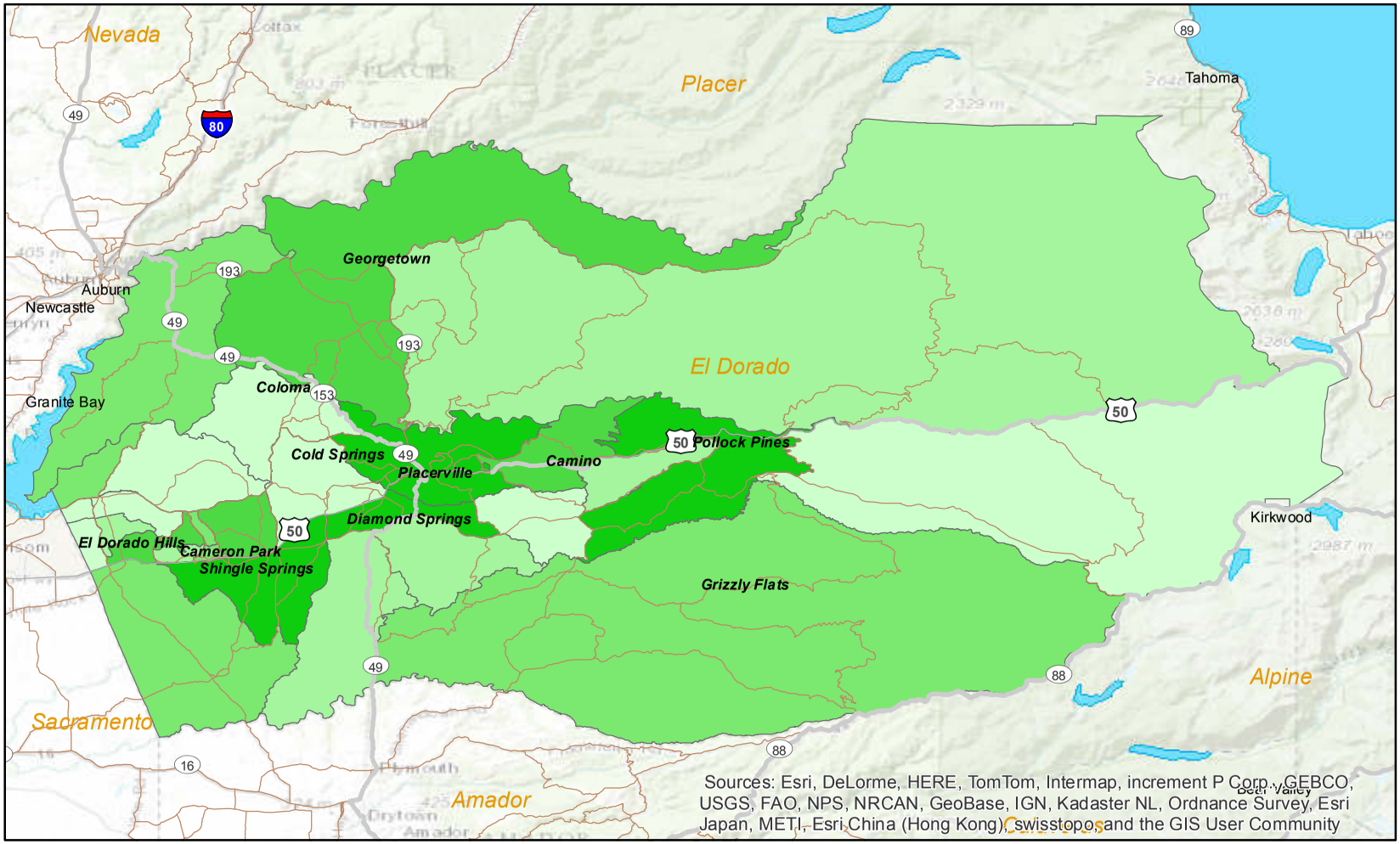
- 0 - 27
- 27 - 71
- 71 - 107
- 107 - 146
- 146 - 253

TRANSPORTATION CONSULTANTS, INC.

0 5 10 20 Miles

Source: 2010 Census

Figure 5
Western El Dorado County Persons Living Below the Poverty Level by Census Tract



Total Low-Income Population Per Census Tract

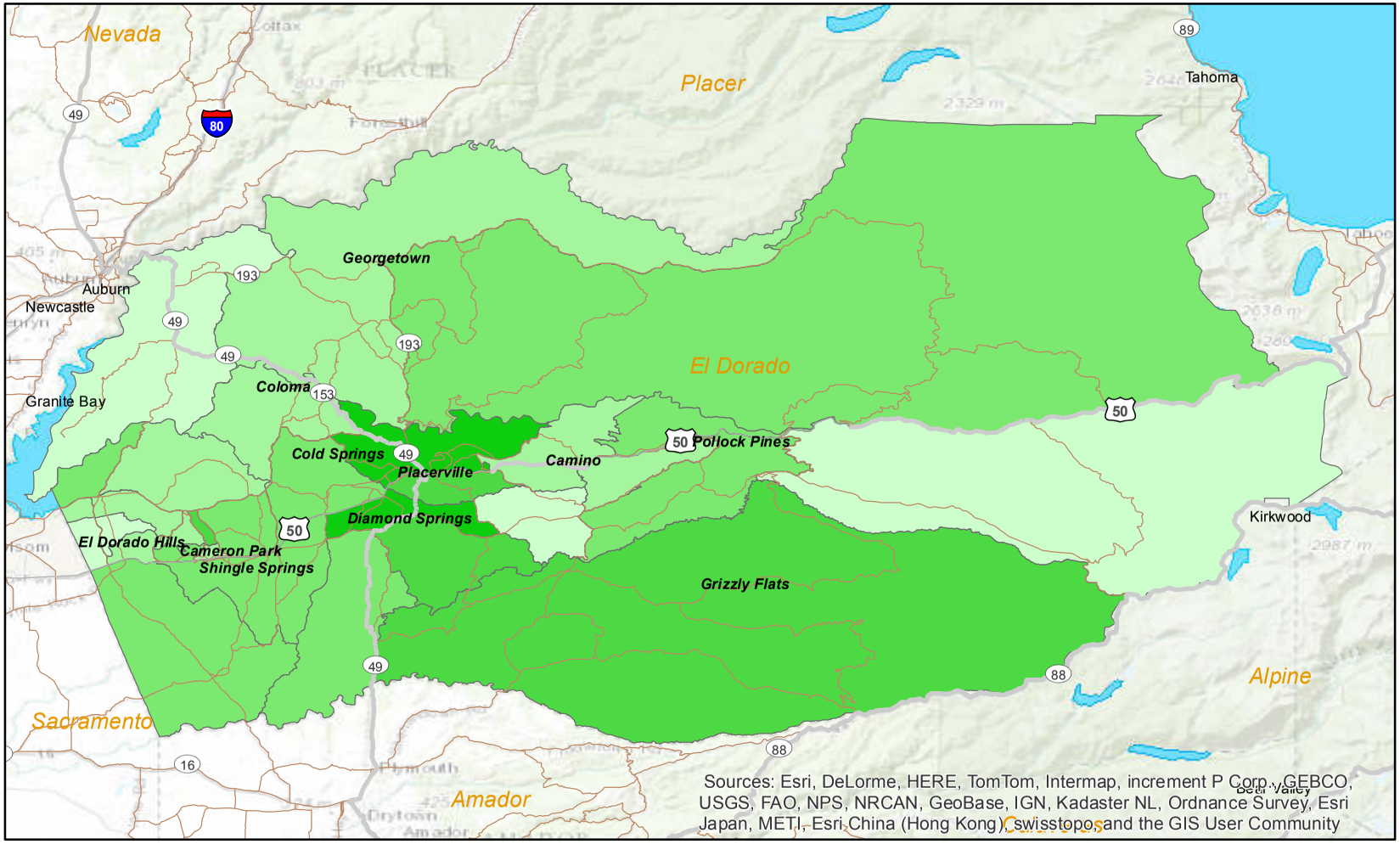
- 0 - 83
- 84 - 187
- 188 - 238
- 239 - 432
- 433 - 954

TRANSPORTATION CONSULTANTS, INC.

0 5 10 20 Miles

Source: 2010 Census

Figure 6
Western El Dorado Zero Vehicle Households by Census Tract



Zero Vehicle Households per Census Tract

- 0 - 10
- 11 - 27
- 28 - 57
- 58 - 115
- 116 - 213

TRANSPORTATION CONSULTANTS, INC.

0 5 10 20 Miles

Source: 2010 Census

Senior Population Trends

While forecasts of other population groups with a higher potential for transit use are not available, the California Department of Finance's Demographic Research Unit prepares forecasts of population by age group for each county, that are very useful in understanding the impacts that future growth in senior population will have on transit needs. As shown in Table 4, these forecasts are available for each decade, for the county as a whole. These countywide figures were adjusted to reflect the western portion of the county by factoring out the population by age group for the eastern portion of the county. A review of these forecasts indicates the following:

- Reflecting the "Silver Tsunami" – the aging of the Baby Boom generation – the total number of seniors age 65 and above will increase dramatically. From the 2010 figures, total seniors are forecast to increase by 67 percent by 2020, by 139 percent by 2030, and by 156 percent by 2040. The overall increase in senior age categories is shown in Figure 7. In total, the number of seniors is forecast to increase from a figure in 2010 of 22,956 up to 58,828 in 2040.

- Those seniors age 75 and above (and thus more likely to need transit services such as Dial-A-Ride) will increase at even a faster rate than total seniors, with growth between 2010 and 2040 of 253 percent, or 25,405 additional residents.

- Focusing on those seniors age 85 and above, the 2010 figure of 2,809 is forecast to increase to 11,143 – a full 297 percent increase.

- While the absolute number of "young retirees" age 65 to 74 will crest in 2030, the number of persons in the older age categories will continue to increase through 2040.

These figures reflect a significant future increased need for transit services, particularly Dial-A-Ride services. As an aside, Table 4 indicates only modest overall increase in the number of children 5 to 17 years in age.

ECONOMIC / EMPLOYMENT FORECASTS

Rebounding from the Great Recession, Western El Dorado County's economy is currently forecast to be relatively strong over coming years. The Caltrans Office of State Planning – Economic Analysis Branch prepares annual economic forecasts, currently looking out to 2035. The *El Dorado County Economic Forecast* prepared in 2012 includes the following highlights:

- From 2012 through 2017, employment is forecast to increase by 3.3 percent per year. Employment growth will be greatest in construction (2,700 jobs over the five year period), professional services (2,300 jobs) and healthcare/education (1,400 jobs).

- Longer-term employment growth is expected to be more moderate, averaging approximately 900 annual net new jobs between 2018 and 2035. The bulk of this long-term employment growth is expected to be in the professional services and healthcare/education sectors.

- Total taxable sales adjusted for inflation are forecast to increase an average of 3.0 percent between 2012 and 2017.

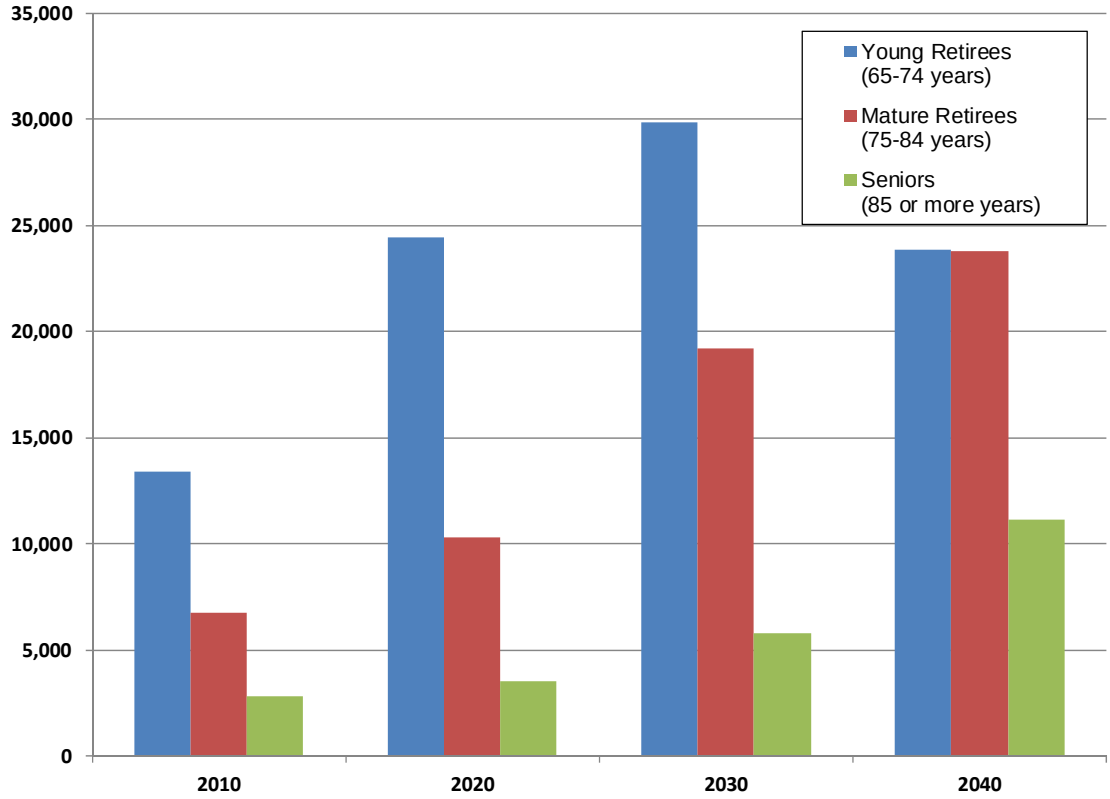
TABLE 4: Population Forecasts by Age

Year	Age Group: Total (All ages)	Preschool Age (0-4 years)	School Age (5-17 years)	College Age (18-24 years)	Working Age (25-64 years)	Young Retirees (65-74 years)	Mature Retirees (75-84 years)	Seniors (85 or more years)	Subtotal: 65 or More Years	Subtotal: 75 or more years
Population Forecast -- Western County										
2010	148,614	7,512	27,275	9,682	71,642	13,411	6,736	2,809	22,956	9,545
2020	170,788	8,649	24,106	14,405	75,820	24,402	10,327	3,533	38,262	13,860
2030	202,178	11,357	29,316	12,245	84,878	29,836	19,224	5,776	54,836	25,000
2040	231,272	11,348	35,679	15,253	100,617	23,879	23,806	11,143	58,828	34,949
Growth From 2010										
2020	22,174	1,137	-3,169	4,722	4,178	10,991	3,591	724	15,306	4,315
2030	53,564	3,845	2,041	2,562	13,236	16,425	12,487	2,967	31,880	15,455
2040	82,658	3,836	8,404	5,570	28,975	10,468	17,070	8,334	35,872	25,405
Percent Growth From 2010										
2020	15%	15%	-12%	49%	6%	82%	53%	26%	67%	45%
2030	36%	51%	7%	26%	18%	122%	185%	106%	139%	162%
2040	56%	51%	31%	58%	40%	78%	253%	297%	156%	266%
Percent of Total Population										
2010	100%	5%	18%	7%	48%	9%	5%	2%	15%	6%
2020	100%	5%	14%	8%	44%	14%	6%	2%	22%	8%
2030	100%	6%	14%	6%	42%	15%	10%	3%	27%	12%
2040	100%	5%	15%	7%	44%	10%	10%	5%	25%	15%

SOURCE: California Department of Finance Demographic Research Unit, Report P-1 (Age), January 2013

Adjusted to reflect western county only, based on 2010 Census characteristics of Tahoe Basin population.

Figure 7: Forecast Western El Dorado County Senior Population Growth
Source: California Department of Finance Demographic Unit



Forecasts of employment growth in various portions of western El Dorado County are provided by the Sacramento Area Council of Governments. These forecasts are presented in Table 5. A review of this table indicates the following:

- These forecasts indicate an additional 5,606 net jobs added between 2008 and 2020.
- Total area employment in 2035 is forecast to be 39 percent higher than in 2008, adding a net of 14,708 jobs.
- Fully 83 percent of the short-term employment growth is expected to occur along US 50 between the Sacramento County line and Diamond Springs, with 55 percent in El Dorado Hills and 25 percent in Cameron Park/Shingle Springs. The southern portion of Placerville is forecast to be the other area of substantial employment growth (7 percent of the total).

Western El Dorado County Household and Employment Projections

The population and employment projections provided in the SACOG Metropolitan Transportation Plan, as discussed above, differ from historical growth patterns in western El Dorado County and are not consistent with the El Dorado County General Plan. The County of El Dorado has commissioned a separate analysis of future growth. These forecasts, as prepared by BAE Urban

TABLE 5: Western El Dorado County Employment Projections: 2008-2035

Excludes Tahoe Basin

Area	2008	2020	2035	Growth 2008 to 2020	Growth 2020 to 2035	Growth 2008 to 2035	% of Total Growth 2008 to 2020	% of Total Growth 2020 to 2035	% of Total Growth 2008 to 2035
El Dorado Hills	14,020	16,427	23,780	2,407	7,352	9,760	43%	61%	55%
Cameron Park - Shingle Springs	7,654	10,091	12,154	2,436	2,063	4,499	43%	17%	25%
Coloma / Lotus	721	721	861	0	140	140	0%	1%	1%
Diamond Springs	1,346	1,465	1,795	120	330	449	2%	3%	3%
West Placerville	5,543	5,814	6,341	272	527	799	5%	4%	5%
South Placerville	9,446	9,659	10,727	213	1,069	1,282	4%	9%	7%
East Placerville	1,160	1,160	1,314	0	154	154	0%	1%	1%
Georgetown	1,375	1,375	1,375	0	0	0	0%	0%	0%
Pilot Hill	363	363	363	0	0	0	0%	0%	0%
Pollock Pines	2,394	2,553	2,958	158	405	564	3%	3%	3%
Mt. Aukum - Grizzly Flat	531	531	531	0	0	0	0%	0%	0%
El Dorado High Country	211	211	211	0	0	0	0%	0%	0%
El Dorado County Total *	44,764	50,370	62,409	5,606	12,039	17,646	100%	100%	100%
Subtotals									
US 50 Corridor West of Placerville	*23,020*	*27,983*	*37,728*	*4,963*	*9,745*	*14,708*	89%	81%	83%
Placerville Area	*16,148*	*16,633*	*18,383*	*485*	*1,750*	*2,234*	9%	15%	13%
North County	*2,459*	*2,459*	*2,599*	*0*	*140*	*140*	0%	1%	1%

Source: SACOG, email 1/13/14

Economics, are presented in Table 6 and shown in Figure 8, and are based on historic growth patterns as well as future development capacity. These "County" forecasts are prepared for 13 "market areas". Note that it is not possible to directly compare these forecasts with the SACOG forecasts, as the County forecasts exclude growth within the City of Placerville, the geographic subareas are not identical, and the County forecasts are in number of households while the SACOG forecasts population. Overall, however, the County forecasts indicate a higher proportion of population growth in Cameron Park/Shingle Springs, Pleasant Valley, and the northern portion of the county (Cool, Pilot Hill, Georgetown) and a lower proportion (though still the greatest amount) in El Dorado Hills as well as Pollock Pines. Regarding employment, the County projections indicate a lower concentration of future growth in El Dorado Hills and a higher concentration in Placerville, North County, and Pollock Pines.

These County projections also indicate the forecasted number of multifamily units in each market area. This is a good indicator of future changes in transit demand, as residents of multifamily units have a higher propensity to use transit service than residents of single family units. As shown in the right portion of Table 6, Cameron Park/Shingle Springs is forecast to accommodate the highest number of multifamily units (635, or 46 percent of the total in the study area excluding Placerville). This is followed by the El Dorado Hills area (22 percent) and the Pleasant Valley area (14 percent).

MAJOR ACTIVITY CENTERS

There are a number of activity centers in Western El Dorado County which potentially generate transit demand. These can be categorized by health services, services for the elderly, services for individuals with disabilities, employment centers, and services for low income individuals and families. Table 7 highlights the most important activity centers in the study area. Some important medical facilities are located outside of the county, such as the Kaiser medical offices in Folsom, and the UC Davis Medical Center and Mercy Medical Center in Sacramento.

MEANS OF TRANSPORTATION TO WORK

The American Community Survey (2007-11 five-year estimates), conducted by the US Census Bureau, indicates that the majority of employed residents in Western El Dorado County (76.7 percent) drove alone, while 10.4 percent carpooled. In addition, 2.1 percent walked, 1.4 percent used public transportation, and 2.1 percent used "other" means (including motorcycles and bicycles). An estimated 7.4 percent of employed persons worked at home, which is significantly higher than the statewide average of 3.2 percent. Compared with the 2000 Census, this indicates a slight reduction in persons commuting in single occupant vehicles (1 percent), a 2.4 percent reduction in persons carpooling, and slight increases in the proportion walking to work, working at home, and commuting by transit.

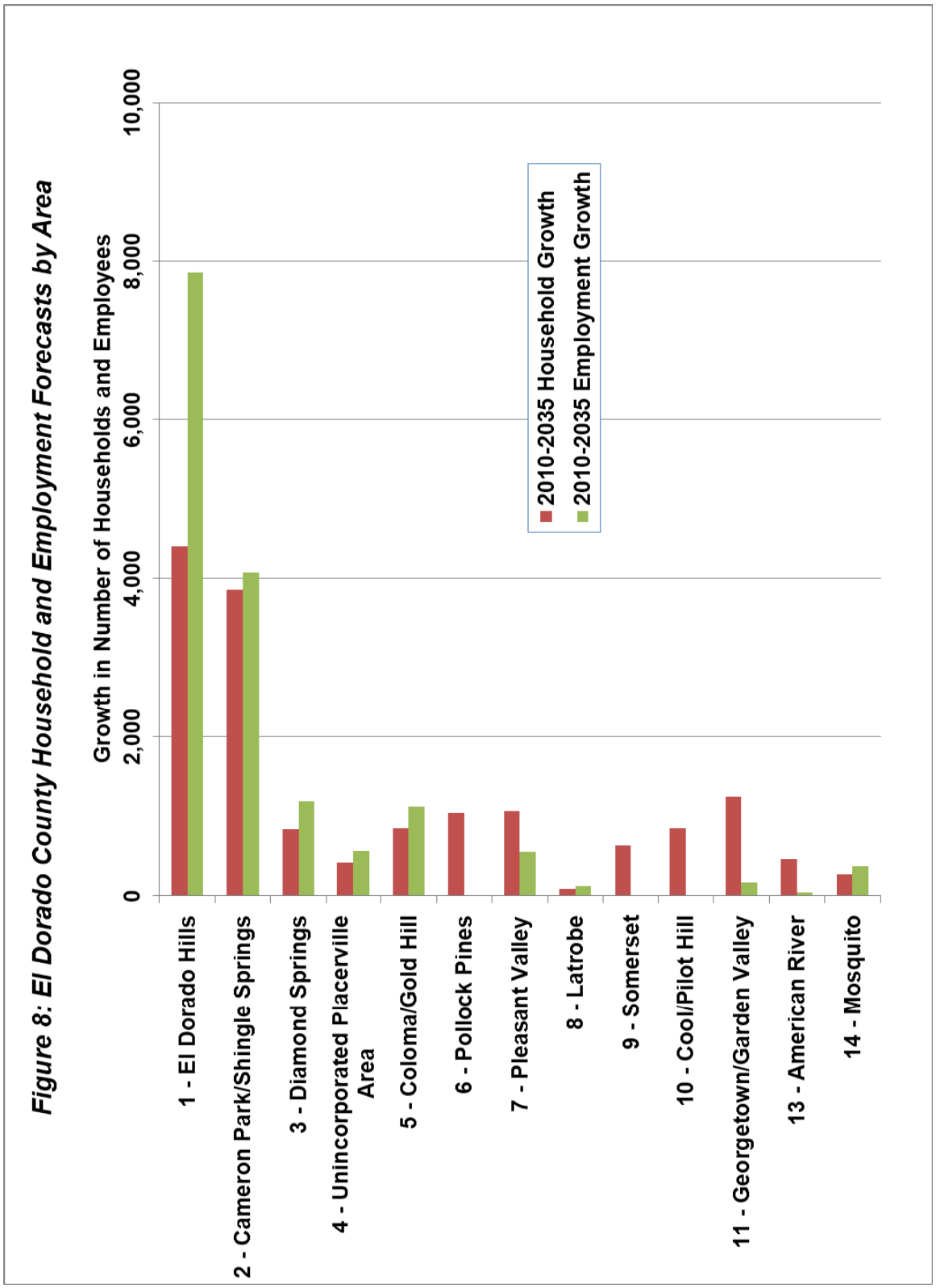


Figure 8: El Dorado County Household and Employment Forecasts by Area

TABLE 6: Projected New Households and Jobs by Market Area in Western El Dorado County, 2010-2035

Excludes City of Placerville

Market Area	Increase Over 5-Year Period					Total	% of Total Growth		New Multifamily Units: 2010 to 2035		
	2010-15	2015-20	2020-25	2025-30	2030-35		2010-20	2010-35	#	% of Total	% of Units
New Households (i.e., occupied units) Added Each Period											
1 - El Dorado Hills	792	834	878	924	972	4,400	27%	27%	312	22%	7%
2 - Cameron Park/Shingle Springs	695	732	770	811	853	3,860	24%	24%	635	46%	16%
3 - Diamond Springs	151	159	167	176	185	837	5%	5%	94	7%	11%
4 - Unincorporated Placerville Area	75	79	83	88	92	417	3%	3%	94	7%	23%
5 - Coloma/Gold Hill	153	161	169	178	187	848	5%	5%	67	5%	8%
6 - Pollock Pines	187	197	207	218	230	1,039	6%	6%	0	0%	0%
7 - Pleasant Valley	191	201	212	223	235	1,063	7%	7%	191	14%	18%
8 - Latrobe	16	16	17	18	19	87	1%	1%	0	0%	0%
9 - Somerset	115	121	127	164	141	637	4%	4%	0	0%	0%
10 - Cool/Pilot Hill	153	161	170	178	188	850	5%	5%	0	0%	0%
11 - Georgetown/Garden Valley	225	237	250	263	277	1,252	8%	8%	0	0%	0%
13 - American River	83	88	92	97	102	463	3%	3%	0	0%	0%
14 - Mosquito	48	51	53	56	59	267	2%	2%	0	0%	0%
Total	**2,885**	**3,036**	**3,196**	**3,363**	**3,540**	**16,020**	100%	100%	1393	100%	9%
New Jobs Added Each Period											
1 - El Dorado Hills	1,414	1,488	1,567	1,649	1,735	7,853	49%	49%			
2 - Cameron Park/Shingle Springs	734	773	813	856	901	4,077	25%	25%			
3 - Diamond Springs	214	225	237	250	263	1,188	7%	7%			
4 - Unincorporated Placerville Area	101	107	112	118	124	563	4%	4%			
5 - Coloma/Gold Hill	202	212	224	235	248	1,121	7%	7%			
6 - Pollock Pines	0	0	0	0	0	0	0%	0%			
7 - Pleasant Valley	101	106	112	118	124	561	3%	3%			
8 - Latrobe	22	23	24	25	27	121	1%	1%			
9 - Somerset	0	0	0	0	0	0	0%	0%			
10 - Cool/Pilot Hill	0	0	0	0	0	0	0%	0%			
11 - Georgetown/Garden Valley	31	33	35	36	38	174	1%	1%			
13 - American River	8	9	9	10	10	46	0%	0%			
14 - Mosquito	67	71	74	78	82	373	2%	2%			
Total	**2,895**	**3,047**	**3,207**	**3,376**	**3,553**	**16,078**	100%	100%			

Notes:

Figures in columns may not sum to totals due to rounding.

Sources: BAE Urban Economics, Memo to County of El Dorado, March 14, 2013 RE: 2035 Growth Projections

TABLE 7: Major Activity Centers in Western El Dorado County

Activity Centers for Seniors, Persons with Disabilities, and Low Income Individuals and Families

Activity Center (by Area)	Program Purpose
Cameron Park	
Alcoholics Anonymous	Recovering Alcoholics
Choices for Children	Child Care Referrals
Boys and Girls Club	
Camino	
Progress House	Women's Addiction Recovery (residential)
Coloma	
Alcoholics Anonymous	
Progress House	Men's Addiction Recovery (residential)
Diamond Springs	
Alcoholics Anonymous	
Lion's Hall	Senior Nutrition Site
El Dorado County Mental Health Division Outpatient Clinic	Mental Health care
El Dorado County Alcohol & Drug	Alcohol & Drug Addiction Recovery
El Dorado	
Alcoholics Anonymous	Recovering Alcoholics
Telos Youth Outposts	Youth Behavioral Services
El Dorado Hills	
Alcoholics Anonymous	
Community Services District	Senior Nutrition Site and Teen Center
El Dorado Hills Senior Center	Senior Services
Sierra Immediate Care Medical Clinic	Medical Services
Garden Valley	
Alcoholics Anonymous	Recovering Alcoholics
Progress House	Women & Children's Residence for Recovering Addicts
Georgetown	
Alcoholics Anonymous	Recovering Alcoholics
Buckner Hall	Community Events
Divide Seniors	Senior Services
Divide Wellness Center	Health Clinic
Greenwood	
Community Center	Senior Nutrition Site
Mt. Aukum	
Three Forks Grange Hall	Community Events
Placerville	
Alcoholics Anonymous	
Alta California Regional Center	Services for Developmentally Disabled
Big Brother Big Sister	Mentoring Program
Boys and Girls Club	
CA Dept of Rehabilitation	
Central Sierra Regional Occupational Program	Job Information and Training
Children's Center/Network	Headstart
Choices Transitional Services	Independent Living Services for Developmentally Disabled Adults
Community Crisis Services	
El Dorado Council on Alcoholism (EDCA)	Alcohol & Drug Addiction Recovery
Placerville continued	
El Dorado County Community Services	
El Dorado County Dept. of Social Services	
El Dorado County Child Support Services	
El Dorado County Food Bank	
El Dorado County Food Programs	
El Dorado County Literacy Services	
El Dorado County Psychiatric Health Facility	
El Dorado County Public Health Dept.	
El Dorado County Senior and Family Services	
El Dorado County Veteran's Service Office	Veteran's Services
The Center for Violence-Free Relationships	Abuse Victims Services
Elder Options	Professional Care Management
GATES Recovery	Addiction Recovery
Golden Sierra Job Training Agency	Employment Services
Health Depot	Life Skills, Preventative Health, Job Skills; Non-Eng. Speakers
Connections One Stop Workforce Development and Business Resource Center	Employment Services
Legal Center for the Elderly	Senior Legal Services
Marshall Hospital	Hospital
Mental Health Day Treatment Center	Treatment for Mental Illness
Motherlode Rehabilitation Enterprises, Inc.	Services for the Disabled Adults
New Morning Youth Shelter	Youth Shelter
Placerville Senior Center	Senior Services, Nutrition Site
Progress House	Transitional Services for Recovering Addicts
S.H.A.R.E.	Food Closet
Senior Day Care Services	Senior Services
Senior Peer Counseling	Senior Services Outreach
Snowline Hospice	End of Life Services
Social Security Administration	Food Stamps, MediCal, CalWorks
TriVisual Services	Services for Visually Impaired
WIC Office	Women, Infant & Children's Services
Pollock Pines	
Alcoholics Anonymous	
Boys and Girls Club	
Senior Center	Senior Services, Nutrition Site
Shingle Springs	
Alcoholics Anonymous	Recovering Alcoholics
El Dorado County Probation -- Child Protective Services	
Senior Center	Senior Services
Shingle Springs Community Center	
Shingle Springs Tribal Health	Drop-In Health Clinic
Somerset	
Alcoholics Anonymous	
Pioneer Park Community Center	Senior Nutrition Site

Source: LSC Transportation Consultants, Inc.

WESTERN EL DORADO COUNTY COMMUTE PATTERNS

Existing Commute Patterns

The US Census' *Longitudinal Employee / Households Dynamics* dataset provides useful information regarding existing commute patterns. The most recent data (from 2011) for all of Western El Dorado County is presented in Table 8 (showing where study area residents work) and Table 9 (showing where persons employed in the study area live). While this data includes persons that do not commute on a daily basis, it still presents a good indication of overall commuting patterns. Highlights of this data are as follows:

TABLE 8: Where Residents of Western El Dorado County Work

2011 Data

	Primary Jobs	
	Number	**Share**
By County or Portion of El Dorado County		
Sacramento County	17,371	32.3%
Western El Dorado County	16,707	31.0%
Placer County	3,806	7.1%
Santa Clara County	1,810	3.4%
Alameda County	1,440	2.7%
Contra Costa County	1,098	2.0%
San Francisco County	1,055	2.0%
Yolo County	940	1.7%
Los Angeles County	792	1.5%
Eastern El Dorado County	225	0.4%
All Other Locations	8,569	15.9%
TOTAL	53,813	
Top 15 Places (Outside of Western El Dorado County)		
Sacramento	5,754	10.7%
Folsom	3,551	6.6%
Rancho Cordova	2,775	5.2%
Roseville	1,817	3.4%
Arden-Arcade Census Data Place	1,257	2.3%
San Francisco	1,055	2.0%
San Jose	752	1.4%
Carmichael	559	1.0%
Rocklin	445	0.8%
Citrus Heights	431	0.8%
North Highlands Census Data Place	403	0.7%
Oakland	398	0.7%
Auburn	394	0.7%
Elk Grove	371	0.7%
Davis	346	0.6%

Source: US Census, OnTheMap website accessed 10/30/13

TABLE 9: Where Persons Employed in Western El Dorado County Live

2011 Data

	Primary Jobs	
	Number	**Share**
By County or Portion of El Dorado County		
Western El Dorado County	16,740	50.9%
Sacramento County	6,915	21.0%
Placer County	1,670	5.1%
Eastern El Dorado County	660	2.0%
San Joaquin County	742	2.3%
Yolo County	515	1.6%
Amador County	464	1.4%
Alameda County	366	1.1%
Contra Costa County	361	1.1%
Santa Clara County	346	1.1%
All Others	4,111	12.5%
Total	32,890	100.0%
Top 15 Places (Outside of Western El Dorado County)		
Folsom	1,399	4.3%
Sacramento	1,154	3.5%
Rancho Cordova	528	1.6%
Citrus Heights	503	1.5%
Elk Grove	478	1.5%
Roseville	465	1.4%
Arden-Arcade Census Data Place	389	1.2%
South Lake Tahoe	389	1.2%
Orangevale Census Data Place	365	1.1%
Carmichael Census Data Place	360	1.1%
Fair Oaks Census Data Place	280	0.9%
Rocklin	257	0.8%
Stockton	232	0.7%
San Jose	207	0.6%
Lincoln	196	0.6%

Source: US Census, OnTheMap website accessed 10/30/13

- Slightly more of employed Western El Dorado County residents work in Sacramento County (17,371, or 32.3 percent of total) than work in Western El Dorado County (16,740, or 31.0 percent).

- Substantial numbers (over 2,000) of employed residents work in Sacramento, Placer County, and Rancho Cordova.

- Just over half (50.9 percent) of persons working in Western El Dorado County are also residents of the area. Sacramento County residents contribute 21.0 percent, while Placer County contributes 5.1 percent. The specific place generating the most inbound commuters is Folsom (1,399) followed by Sacramento (1,154).

- Overall commuting over Echo Summit between western and eastern El Dorado County is modest, with 0.4 percent of western county residents commuting in the eastbound direction and 2.0 of western county employees commuting in the westbound direction.

Overall, Western El Dorado County is a net exporter of commuters, with 36,442 persons commuting out of the area and 16,150 commuting into the area.

Forecast Changes in Commute Patterns

The SACSIM (Sacramento Activity-Based Travel Simulation Model) transportation model, developed and maintained by SACOG, provides data regarding Home-Based Work (HBW) person-trips throughout the six-county Sacramento Region, based upon a system of Regional Analysis Districts (RADs). A person-trip is a one-way trip made by an individual. For purposes of this study, this data has been summarized into a total of 24 districts. As presented in Figure 9, a total of 11 districts comprise Western El Dorado County, while the remainder of the Sacramento Region has been summarized into a total of 13 additional districts. Data and forecasts are available for 2008 and for 2035.

The number of "existing" (2008) modeled home-to-work trips between each of these various districts is presented in Table 10. Only those trips with one or both trip-ends in Western El Dorado County are shown. For instance, this table indicates that there are a total of 1,808 estimated one-way commuter person-trips between El Dorado Hills and downtown Sacramento every weekday (total of persons commuting in both directions). Table 11 presents the same data, for forecasted 2035 conditions. In addition, Table 12 presents the absolute numeric change between the 2010 and 2035 values, while Table 13 presents the percentage change. A review of these tables indicates the following key points regarding expected changes in commuting patterns:

- Overall commuting into and out of Western El Dorado County is forecasted to increase by 30 percent, while commuting between homes and jobs within the county) is forecasted to increase by 36 percent. This reflects a modest shift of El Dorado County to a better balance of homes and employment, increasing internal commuting.

- Commuting between Western El Dorado County and downtown Sacramento is forecast to drop by 20 percent, or 1,058 daily one-way person-trips.

- Considering areas external to Western El Dorado County, the greatest growth in commuting is forecast to be to/from Folsom (11,445 daily person-trips, or a 58 percent increase). Other external areas generating relatively large increases in commuting consist of Rancho Cordova (5,873 person trips, or 35 percent growth) and Roseville (4,967 person-trips, or 58 percent growth).

- The greatest growth in commuting within Western El Dorado County is forecast to occur for trips internal to El Dorado Hills (6,664 person trips, or an 88 percent increase). Other areas of high internal commuting growth consist of trips between El Dorado Hills and Cameron Park/Shingle Springs (3,051, or 84 percent), as well as trips within Cameron Park/Shingle Springs (2,947, or 68 percent). Moderate growth in commuting is forecast to/from the west Placerville area, such as from eastern Placerville, Cameron Park/Shingle Springs, Diamond Springs, and internally.

As these figures reflect the only detailed forecasts of future travel demand between El Dorado County and the remainder of the region, they are used to assess future changes in inter-county transit demand in this study.

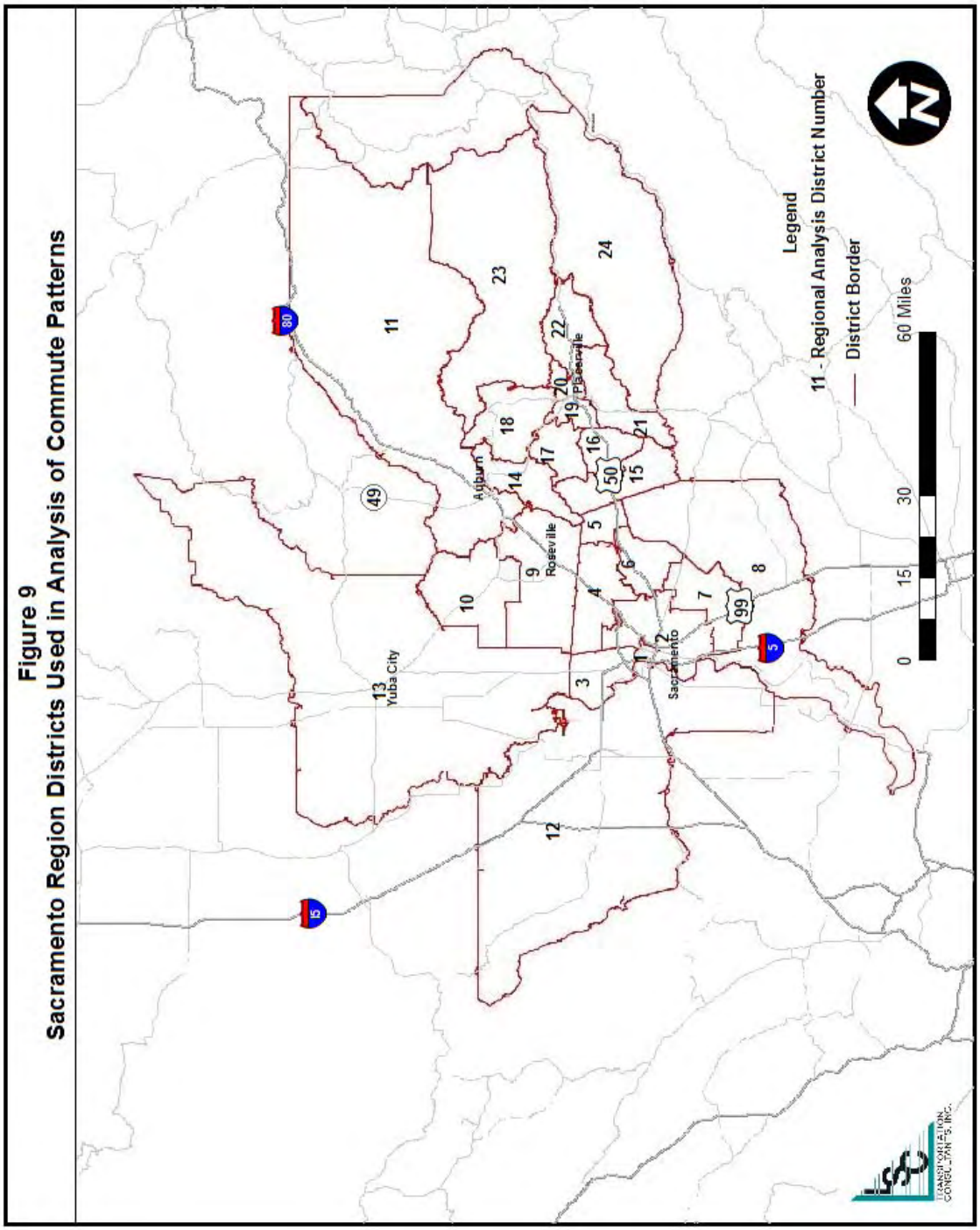


Figure 9
Sacramento Region Districts Used in Analysis of Commute Patterns
Legend
11 - Regional Analysis District Number
District Border
0
15
30
60 Miles
N
Yuba City
Auburn
Roseville
Placerville
Sacramento
80
49
50
99
5
15

TABLE 10: 2008 Western El Dorado County Daily Commuter Person-Trip Distribution

Estimated Total Weekday Person-Trips in Both Direction Between and Within Zones

Zone		Pilot Hill	El Dorado Hills	Cameron Park-Shingle Springs	Coloma-Lotus	Georgetown	West Placerville	East Placerville	Diamond Springs	Pollock Pines	El Dorado High Country	Grizzly Flat	***Total*** [1]
Downtown Sacramento	To/From Other Portions of Region	118	1,808	1,234	288	141	374	231	322	365	52	135	***5,068***
East Sacramento Area		282	4,787	3,084	626	291	976	489	732	967	116	318	***12,668***
Natomas Area		41	392	242	51	29	91	56	59	76	9	14	***1,060***
North Sacramento Area		343	5,338	2,504	509	272	895	413	535	553	100	212	***11,674***
Folsom		300	9,915	4,435	778	357	1,379	680	771	865	105	255	***19,840***
Rancho Cordova		258	6,526	4,135	857	396	1,263	589	1,014	1,173	129	457	***16,797***
Elk Grove Area		23	1,212	542	65	39	252	112	90	66	20	22	***2,443***
Southeast Sacramento County		11	656	248	36	15	130	59	33	35	5	9	***1,237***
Roseville Area		740	3,133	1,648	504	539	503	273	364	500	155	167	***8,526***
Lincoln Area		53	152	90	25	36	42	9	11	20	7	6	***451***
Auburn and East Placer County		865	474	312	324	549	357	190	148	222	131	71	***3,643***
Yolo County		35	499	357	65	40	95	61	88	102	15	28	***1,385***
Yuba-Sutter		21	69	30	2	18	29	2	6	5	2	2	***186***
Pilot Hill	Internal to Study Area	48	155	74	18	78	137	53	16	16	11	2	***3,698***
El Dorado Hills		--	7,556	3,643	541	216	1,023	480	516	478	62	173	***49,804***
Cameron Park-Shingle Springs		--	--	4,303	704	283	2,251	839	673	603	93	230	***32,557***
Coloma-Lotus		--	--	--	104	110	657	250	84	76	17	7	***6,698***
Georgetown		--	--	--	--	391	611	394	101	92	115	24	***5,137***
West Placerville		--	--	--	--	--	4,793	3,491	1,611	1,624	269	442	***23,295***
East Placerville		--	--	--	--	--	--	2,741	775	1,386	173	305	***14,051***
Diamond Springs		--	--	--	--	--	--	--	459	411	32	224	***9,075***
Pollock Pines		--	--	--	--	--	--	--	--	1,566	52	137	***11,390***
El Dorado High Country		--	--	--	--	--	--	--	--	--	30	4	***1,704***
Grizzly Flat		--	--	--	--	--	--	--	--	--	--	226	***3,470***

Total Trips External to El Dorado County 84,978
Total Trips Internal to El Dorado County 49,059

Note 1: The total column includes trips with one or both trip-ends in each respective zone. Trips within El Dorado County double counted.

Source: SACOG SACSIM Model

TABLE 11: 2035 Western El Dorado County Daily Commuter Person-Trip Distribution

Estimated Total Weekday Person-Trips in Both Direction Between and Within Zones

Zone		Pilot Hill	El Dorado Hills	Cameron Park-Shingle Springs	Coloma-Lotus	Georgetown	West Placerville	East Placerville	Diamond Springs	Pollock Pines	El Dorado High Country	Grizzly Flat	***Total*** [1]
Downtown Sacramento	To/From Other Portions of Region	70	1,522	1,108	160	69	318	173	238	291	29	52	***4,030***
East Sacramento Area		199	5,112	3,235	512	220	936	526	693	655	73	204	***12,365***
Natomas Area		40	524	254	38	30	76	46	62	58	5	29	***1,162***
North Sacramento Area		269	7,548	3,296	467	228	894	425	599	529	76	188	***14,519***
Folsom		345	18,220	6,721	909	353	1,697	765	960	893	114	308	***31,285***
Rancho Cordova		259	10,351	5,791	881	346	1,560	780	1,093	1,111	129	369	***22,670***
Elk Grove Area		24	1,816	795	68	25	358	108	92	97	8	35	***3,426***
Southeast Sacramento County		11	748	265	21	10	121	44	26	22	3	5	***1,276***
Roseville Area		797	5,969	2,950	700	608	698	375	540	527	155	174	***13,493***
Lincoln Area		110	403	160	40	63	50	20	20	20	9	11	***906***
Auburn and East Placer County		893	759	310	291	492	377	174	167	236	118	60	***3,877***
Yolo County		28	542	390	78	26	105	62	98	83	15	29	***1,456***
Yuba-Sutter		8	154	40	6	13	23	6	5	3	2	3	***263***
Pilot Hill	Internal to Study Area	29	175	72	13	68	118	48	10	18	4	1	***3,609***
El Dorado Hills		--	14,220	6,694	713	278	1,462	612	713	632	84	219	***79,470***
Cameron Park-Shingle Springs		--	--	7,250	991	320	2,879	1,048	1,011	638	87	245	***46,550***
Coloma-Lotus		--	--	--	151	88	788	240	104	55	13	12	***7,339***
Georgetown		--	--	--	--	462	604	316	75	69	92	13	***4,868***
West Placerville		--	--	--	--	--	5,732	3,865	2,108	1,820	265	518	***27,372***
East Placerville		--	--	--	--	--	--	2,933	888	1,262	178	265	***15,159***
Diamond Springs		--	--	--	--	--	--	--	629	477	22	183	***10,813***
Pollock Pines		--	--	--	--	--	--	--	--	1,573	47	193	***11,309***
El Dorado High Country		--	--	--	--	--	--	--	--	--	26	2	***1,556***
Grizzly Flat		--	--	--	--	--	--	--	--	--	--	161	***3,279***

Total Trips External to El Dorado County 110,728
Total Trips Internal to El Dorado County 66,881

Note 1: The total column includes trips with one or both trip-ends in each respective zone. Trips within El Dorado County double counted.

Source: SACOG SACSIM Model

TABLE 12: Change in Western El Dorado County Daily Commuter Person-Trips -- 2008 to 2035

Estimated Total Weekday Person-Trips in Both Direction Between and Within Zones

Zone		Pilot Hill	El Dorado Hills	Cameron Park-Shingle Springs	Coloma-Lotus	Georgetown	West Placerville	East Placerville	Diamond Springs	Pollock Pines	El Dorado High Country	Grizzly Flat	***Total*** [1]
Downtown Sacramento	To/From Other Portions of Region	-48	-286	-126	-128	-72	-56	-58	-84	-74	-23	-83	***-1,038***
East Sacramento Area		-83	325	151	-114	-71	-40	37	-39	-312	-43	-114	***-303***
Natomas Area		-1	132	12	-13	1	-15	-10	3	-18	-4	15	***102***
North Sacramento Area		-74	2,210	792	-42	-44	-1	12	64	-24	-24	-24	***2,845***
Folsom		45	8,305	2,286	131	-4	318	85	189	28	9	53	***11,445***
Rancho Cordova		1	3,825	1,656	24	-50	297	191	79	-62	0	-88	***5,873***
Elk Grove Area		1	604	253	3	-14	106	-4	2	31	-12	13	***983***
Southeast Sacramento County		0	92	17	-15	-5	-9	-15	-7	-13	-2	-4	***39***
Roseville Area		57	2,836	1,302	196	69	195	102	176	27	0	7	***4,967***
Lincoln Area		57	251	70	15	27	8	11	9	0	2	5	***455***
Auburn and East Placer County		28	285	-2	-33	-57	20	-16	19	14	-13	-11	***234***
Yolo County		-7	43	33	13	-14	10	1	10	-19	0	1	***71***
Yuba-Sutter		-13	85	10	4	-5	-6	4	-1	-2	0	1	***77***
Pilot Hill	Internal to Study Area	-19	20	-2	-5	-10	-19	-5	-6	2	-7	-1	***-89***
El Dorado Hills		--	6,664	3,051	172	62	439	132	197	154	22	46	***29,666***
Cameron Park-Shingle Springs		--	--	2,947	287	37	628	209	338	35	-6	15	***13,993***
Coloma-Lotus		--	--	--	47	-22	131	-10	20	-21	-4	5	***641***
Georgetown		--	--	--	--	71	-7	-78	-26	-23	-23	-11	***-269***
West Placerville		--	--	--	--	--	939	374	497	196	-4	76	***4,077***
East Placerville		--	--	--	--	--	--	192	113	-124	5	-40	***1,108***
Diamond Springs		--	--	--	--	--	--	--	170	66	-10	-41	***1,738***
Pollock Pines		--	--	--	--	--	--	--	--	7	-5	56	***-81***
El Dorado High Country		--	--	--	--	--	--	--	--	--	-4	-2	***-148***
Grizzly Flat		--	--	--	--	--	--	--	--	--	--	-65	***-191***

Total Trips External to El Dorado County	25,750
Total Trips Internal to El Dorado County	17,822

Note 1: The total column includes trips with one or both trip-ends in each respective zone. Trips within El Dorado County double counted.

Source: SACOG SACSIM Model

TABLE 13: Percent Change in Western El Dorado County Daily Commuter Person-Trips -- 2008 to 2035

Estimated Total Weekday Person-Trips in Both Direction Between and Within Zones

Zone		Pilot Hill	El Dorado Hills	Cameron Park-Shingle Springs	Coloma-Lotus	Georgetown	West Placerville	East Placerville	Diamond Springs	Pollock Pines	El Dorado High Country	Grizzly Flat	***Total*** [1]
Downtown Sacramento	To/From Other Portions of Region	-41%	-16%	-10%	-44%	-51%	-15%	-25%	-26%	-20%	-44%	-61%	***-20%***
East Sacramento Area		-29%	7%	5%	-18%	-24%	-4%	8%	-5%	-32%	-37%	-36%	***-2%***
Natomas Area		-2%	34%	5%	-25%	3%	-16%	-18%	5%	-24%	-44%	107%	***10%***
North Sacramento Area		-22%	41%	32%	-8%	-16%	0%	3%	12%	-4%	-24%	-11%	***24%***
Folsom		15%	84%	52%	17%	-1%	23%	13%	25%	3%	9%	21%	***58%***
Rancho Cordova		0%	59%	40%	3%	-13%	24%	32%	8%	-5%	0%	-19%	***35%***
Elk Grove Area		4%	50%	47%	5%	-36%	42%	-4%	2%	47%	-60%	59%	***40%***
Southeast Sacramento County		0%	14%	7%	-42%	-33%	-7%	-25%	-21%	-37%	-40%	-44%	***3%***
Roseville Area		8%	91%	79%	39%	13%	39%	37%	48%	5%	0%	4%	***58%***
Lincoln Area		108%	165%	78%	60%	75%	19%	122%	82%	0%	29%	83%	***101%***
Auburn and East Placer County		3%	60%	-1%	-10%	-10%	6%	-8%	13%	6%	-10%	-15%	***6%***
Yolo County		-20%	9%	9%	20%	-35%	11%	2%	11%	-19%	0%	4%	***5%***
Yuba-Sutter		-62%	123%	33%	200%	-28%	-21%	200%	-17%	-40%	0%	50%	***41%***
Pilot Hill	Internal to Study Area	-40%	13%	-3%	-28%	-13%	-14%	-9%	-38%	13%	-64%	-50%	***-2%***
El Dorado Hills		--	88%	84%	32%	29%	43%	28%	38%	32%	35%	27%	***60%***
Cameron Park-Shingle Springs		--	--	68%	41%	13%	28%	25%	50%	6%	-6%	7%	***43%***
Coloma-Lotus		--	--	--	45%	-20%	20%	-4%	24%	-28%	-24%	71%	***10%***
Georgetown		--	--	--	--	18%	-1%	-20%	-26%	-25%	-20%	-46%	***-5%***
West Placerville		--	--	--	--	--	20%	11%	31%	12%	-1%	17%	***18%***
East Placerville		--	--	--	--	--	--	7%	15%	-9%	3%	-13%	***8%***
Diamond Springs		--	--	--	--	--	--	--	37%	16%	-31%	-18%	***19%***
Pollock Pines		--	--	--	--	--	--	--	--	0%	-10%	41%	***-1%***
El Dorado High Country		--	--	--	--	--	--	--	--	--	-13%	-50%	***-9%***
Grizzly Flat		--	--	--	--	--	--	--	--	--	--	-29%	***-6%***
							Total Trips External to El Dorado County					**30%**	
							Total Trips Internal to El Dorado County					**36%**	

Note 1: The total column includes trips with one or both trip-ends in each respective zone. Trips within El Dorado County double counted. Source: SACOG SACSIM Model

Existing and Future Western El Dorado County Internal Travel Patterns

The SACOG SACSIM transportation model also provides very useful information regarding existing and future travel patterns within Western El Dorado County. Table 14 presents the total person-trip origin/destination estimates for 2008, while Table 15 presents the forecasts for 2035, Table 16 presents the numeric change from 2008 to 2035, and Table 17 presents the percentage change. A review of this information indicates the following highlights:

- Person-trips internal to Western El Dorado County will grow by 28 percent, while those between Western El Dorado County and other areas will grow by 41 percent. This will result in a growth in the percent of all Western El Dorado County travel that goes external to the county from 33 percent in 2008 to 36 percent in 2035.

- The largest growth in external traffic will be to/from Folsom (44,839 additional person-trips, or a growth of 74 percent. Other areas with relatively high growth in traffic to/from Western El Dorado County are Rancho Cordova (12,414 or 42 percent and Roseville (10,722, or 61 percent). At the opposite extreme, total person trips to/from downtown Sacramento are forecast to drop by 1,227, or 19 percent.

Internal to Western El Dorado County, the greatest growth in travel will be within El Dorado Hills (35,557 person-trips), within Cameron Park/Shingle Springs (29,347 person-trips), or between El Dorado Hills and Cameron Park/Shingle Springs (12,356). Of all forecast growth in Western El Dorado County, fully 76 percent is forecast to occur within the larger El Dorado Hills / Cameron Park / Shingle Springs area. The only other substantial concentration of growth in trips is in the Placerville / Diamond Springs area, which is forecast to encompass 17 percent of total future growth.

MAJOR PLANNED DEVELOPMENTS

Major development and specific plans currently in the planning process consist of the following. Note that these proposals require various levels of analysis and discretionary decision-making.

- The **Diamond Dorado Center** would provide a substantial new commercial center on State Route (SR) 49 just north of Lime Kiln Road in Diamond Springs, consisting of 280.5 thousand square feet of retail floor area. The Final Environmental Impact Report (EIR) was prepared in 2012, and the development was approved.

- The **Dixon Ranch Residential Project** is proposed for a 280-acre site on the south side of Green Valley Road near Malcolm Dixon Road, in the northeastern portion of El Dorado Hills. It would consist of 605 single-family residential units, approximately 160 of which would be age-restricted to older adults. It is currently in the EIR process. This project would increase the potential demand for transit service (particularly for dial-a-ride service) in an area not served by existing fixed routes.

- The **San Stino Residential Project** would consist of 1,041 single family residential units in a gated development, located on 645 acres on the south side of Mother Lode Drive, approximately one mile east of Shingle Springs. An EIR is currently in preparation. As a gated, low density development without age or income restrictions, it is not expected to generate a significant new demand for transit service.

TABLE 14: 2008 Western El Dorado County Daily Person-Trip Distribution

Estimated Total Weekday Person-Trips in Both Direction Between and Within Zones

Zone		Pilot Hill	El Dorado Hills	Cameron Park-Shingle Springs	Coloma-Lotus	Georgetown	West Placerville	East Placerville	Diamond Springs	Pollock Pines	El Dorado High Country	Grizzly Flat	Total [1]
Downtown Sacramento	To/From Other Portions of Region	174	2,376	1,624	374	172	449	253	394	428	63	155	***6,462***
East Sacramento Area	To/From Other Portions of Region	459	8,225	5,380	1,039	422	1,281	695	1,085	1,222	162	398	***20,368***
Natomas Area	To/From Other Portions of Region	73	581	348	74	49	112	63	77	104	10	17	***1,508***
North Sacramento Area	To/From Other Portions of Region	814	12,768	5,902	1,227	493	1,383	592	966	857	161	311	***25,474***
Folsom	To/From Other Portions of Region	867	37,163	12,902	2,125	683	2,337	1,005	1,545	1,333	204	446	***60,610***
Rancho Cordova	To/From Other Portions of Region	445	12,824	7,798	1,493	548	1,698	752	1,437	1,507	215	615	***29,332***
Elk Grove Area	To/From Other Portions of Region	37	1,627	768	102	65	284	125	116	86	25	33	***3,268***
Southeast Sacramento County	To/From Other Portions of Region	27	1,956	770	83	29	215	93	80	58	8	15	***3,334***
Roseville Area	To/From Other Portions of Region	2,266	7,082	3,167	1,103	1,035	740	369	577	673	298	218	***17,528***
Lincoln Area	To/From Other Portions of Region	223	274	145	71	78	62	17	20	28	17	7	***942***
Auburn and East Placer County	To/From Other Portions of Region	5,126	817	514	941	1,580	562	304	242	334	329	110	***10,859***
Yolo County	To/From Other Portions of Region	42	655	441	89	52	118	66	106	125	19	34	***1,747***
Yuba-Sutter	To/From Other Portions of Region	37	83	39	10	26	33	2	9	7	2	2	***250***
Pilot Hill	Internal to Study Area	2,204	649	257	296	648	408	190	45	43	84	6	***15,420***
El Dorado Hills	Internal to Study Area	--	71,791	19,513	2,641	550	2,348	894	1,248	842	147	309	***187,363***
Cameron Park-Shingle Springs	Internal to Study Area	--	--	50,510	6,714	1,024	8,452	2,395	3,047	1,519	286	615	***134,130***
Coloma-Lotus	Internal to Study Area	--	--	--	3,046	1,325	4,074	1,210	466	274	106	41	***28,924***
Georgetown	Internal to Study Area	--	--	--	--	8,812	2,556	1,666	393	331	1,721	48	***24,306***
West Placerville	Internal to Study Area	--	--	--	--	--	32,978	19,246	11,741	6,044	1,177	1,754	***100,052***
East Placerville	Internal to Study Area	--	--	--	--	--	--	20,703	5,314	6,931	1,002	1,340	***65,227***
Diamond Springs	Internal to Study Area	--	--	--	--	--	--	--	8,961	3,451	168	2,309	***43,797***
Pollock Pines	Internal to Study Area	--	--	--	--	--	--	--	--	23,854	480	1,165	***51,696***
El Dorado High Country	Internal to Study Area	--	--	--	--	--	--	--	--	--	1,068	34	***7,786***
Grizzly Flat	Internal to Study Area	--	--	--	--	--	--	--	--	--	--	7,623	***17,605***

Total Trips External to El Dorado County **181,682**

Total Trips Internal to El Dorado County **363,087**

Note 1: The total column includes trips with one or both trip-ends in each respective zone. Trips within El Dorado County double counted.

TABLE 15: 2035 Western El Dorado County Daily Person-Trip Distribution

Estimated Total Weekday Person-Trips in Both Direction Between and Within Zones

Zone		Pilot Hill	El Dorado Hills	Cameron Park-Shingle Springs	Coloma-Lotus	Georgetown	West Placerville	East Placerville	Diamond Springs	Pollock Pines	El Dorado High Country	Grizzly Flat	Total [1]
Downtown Sacramento	To/From Other Portions of Region	121	2,061	1,432	231	91	373	190	289	342	40	65	***5,235***
East Sacramento Area	To/From Other Portions of Region	347	8,862	5,353	807	322	1,249	627	987	856	128	303	***19,841***
Natomas Area	To/From Other Portions of Region	70	761	372	53	40	95	52	79	74	18	39	***1,653***
North Sacramento Area	To/From Other Portions of Region	763	17,203	7,428	1,155	425	1,407	632	1,031	811	145	298	***31,298***
Folsom	To/From Other Portions of Region	940	72,800	20,158	2,532	716	2,933	1,216	1,913	1,476	219	546	***105,449***
Rancho Cordova	To/From Other Portions of Region	469	21,565	10,711	1,458	530	2,235	990	1,599	1,464	190	535	***41,746***
Elk Grove Area	To/From Other Portions of Region	38	2,538	1,053	98	32	389	121	122	134	19	42	***4,586***
Southeast Sacramento County	To/From Other Portions of Region	21	2,343	865	56	14	184	80	63	44	9	15	***3,694***
Roseville Area	To/From Other Portions of Region	2,468	13,586	5,988	1,502	1,156	993	485	787	729	309	247	***28,250***
Lincoln Area	To/From Other Portions of Region	291	683	267	91	122	62	26	26	23	33	15	***1,639***
Auburn and East Placer County	To/From Other Portions of Region	5,195	1,264	554	777	1,569	577	250	227	306	324	82	***11,125***
Yolo County	To/From Other Portions of Region	45	813	554	95	40	132	76	116	99	16	42	***2,028***
Yuba-Sutter	To/From Other Portions of Region	15	174	67	15	22	32	10	5	3	2	5	***350***
Pilot Hill	Internal to Study Area	1,982	668	318	208	591	371	168	43	49	79	2	***15,262***
El Dorado Hills	Internal to Study Area	--	107,348	31,869	3,014	700	3,066	1,149	1,731	1,085	188	399	***295,870***
Cameron Park-Shingle Springs	Internal to Study Area	--	--	79,857	7,968	1,213	10,540	2,928	4,227	1,679	320	692	***196,413***
Coloma-Lotus	Internal to Study Area	--	--	--	3,103	1,133	4,122	990	517	269	76	49	***30,319***
Georgetown	Internal to Study Area	--	--	--	--	8,481	2,748	1,601	319	279	1,526	27	***23,697***
West Placerville	Internal to Study Area	--	--	--	--	--	39,582	21,101	14,942	6,597	1,116	1,888	***116,734***
East Placerville	Internal to Study Area	--	--	--	--	--	--	22,883	6,132	7,086	1,015	1,261	***71,069***
Diamond Springs	Internal to Study Area	--	--	--	--	--	--	--	11,742	3,414	141	2,198	***52,650***
Pollock Pines	Internal to Study Area	--	--	--	--	--	--	--	--	23,905	468	1,209	***52,401***
El Dorado High Country	Internal to Study Area	--	--	--	--	--	--	--	--	--	1,074	35	***7,490***
Grizzly Flat	Internal to Study Area	--	--	--	--	--	--	--	--	--	--	7,220	***17,214***
								Total Trips External to El Dorado County				**256,894**	
								Total Trips Internal to El Dorado County				**464,701**	

Note 1: The total column includes trips with one or both trip-ends in each respective zone. Trips within El Dorado County double counted.

TABLE 16: Change in Western El Dorado County Daily Person-Trips -- 2008 to 2035

Estimated Total Weekday Person-Trips in Both Direction Between and Within Zones

Zone		Pilot Hill	El Dorado Hills	Cameron Park-Shingle Springs	Coloma-Lotus	Georgetown	West Placerville	East Placerville	Diamond Springs	Pollock Pines	El Dorado High Country	Grizzly Flat	***Total Change*** [1]
Downtown Sacramento	To/From Other Portions of Region	-53	-315	-192	-143	-81	-76	-63	-105	-86	-23	-90	***-1,227***
East Sacramento Area		-112	637	-27	-232	-100	-32	-68	-98	-366	-34	-95	***-527***
Natomas Area		-3	180	24	-21	-9	-17	-11	2	-30	8	22	***145***
North Sacramento Area		-51	4,435	1,526	-72	-68	24	40	65	-46	-16	-13	***5,824***
Folsom		73	35,637	7,256	407	33	596	211	368	143	15	100	***44,839***
Rancho Cordova		24	8,741	2,913	-35	-18	537	238	162	-43	-25	-80	***12,414***
Elk Grove Area		1	911	285	-4	-33	105	-4	6	48	-6	9	***1,318***
Southeast Sacramento County		-6	387	95	-27	-15	-31	-13	-17	-14	1	0	***360***
Roseville Area		202	6,504	2,821	399	121	253	116	210	56	11	29	***10,722***
Lincoln Area		68	409	122	20	44	0	9	6	-5	16	8	***697***
Auburn and East Placer County		69	447	40	-164	-11	15	-54	-15	-28	-5	-28	***266***
Yolo County		3	158	113	6	-12	14	10	10	-26	-3	8	***281***
Yuba-Sutter		-22	91	28	5	-4	-1	8	-4	-4	0	3	***100***
Pilot Hill	Internal to Study Area	-222	19	61	-88	-57	-37	-22	-2	6	-5	-4	***-158***
El Dorado Hills		--	35,557	12,356	373	150	718	255	483	243	41	90	***108,507***
Cameron Park-Shingle Springs		--	–	29,347	1,254	189	2,088	533	1,180	160	34	77	***62,283***
Coloma-Lotus		--	--	--	57	-192	48	-220	51	-5	-30	8	***1,395***
Georgetown		--	--	--	--	-331	192	-65	-74	-52	-195	-21	***-609***
West Placerville		--	--	–	--	--	6,604	1,855	3,201	553	-61	134	***16,682***
East Placerville		--	--	--	--	--	--	2,180	818	155	13	-79	***5,842***
Diamond Springs		--	--	--	--	--	--	--	2,781	-37	-27	-111	***8,853***
Pollock Pines		--	--	–	--	--	--	--	--	51	-12	44	***705***
El Dorado High Country		--	--	--	--	--	--	--	--	--	6	1	***-296***
Grizzly Flat		--	--	--	–	--	--	--	--	--	--	-403	***-391***

Total Trips External to El Dorado County **75,212**

Total Trips Internal to El Dorado County **101,614**

Note 1: The total column includes trips with one or both trip-ends in each respective zone. Trips within El Dorado County double counted.

TABLE 17: Percent Change in Western El Dorado County Daily Person-Trips -- 2008 to 2035

Zone	Pilot Hill	El Dorado Hills	Cameron Park-Shingle Springs	Coloma-Lotus	Georgetown	West Placerville	East Placerville	Diamond Springs	Pollock Pines	El Dorado High Country	Grizzly Flat	*Total* [1]
Downtown Sacramento	-30%	-13%	-12%	-38%	-47%	-17%	-25%	-27%	-20%	-37%	-58%	***-19%***
East Sacramento Area	-24%	8%	-1%	-22%	-24%	-2%	-10%	-9%	-30%	-21%	-24%	***-3%***
Natomas Area	-4%	31%	7%	-28%	-18%	-15%	-17%	3%	-29%	80%	129%	***10%***
North Sacramento Area	-6%	35%	26%	-6%	-14%	2%	7%	7%	-5%	-10%	-4%	***23%***
Folsom	8%	96%	56%	19%	5%	26%	21%	24%	11%	7%	22%	***74%***
Rancho Cordova	5%	68%	37%	-2%	-3%	32%	32%	11%	-3%	-12%	-13%	***42%***
Elk Grove Area	3%	56%	37%	-4%	-51%	37%	-3%	5%	56%	-24%	27%	***40%***
Southeast Sacramento County	-22%	20%	12%	-33%	-52%	-14%	-14%	-21%	-24%	13%	0%	***11%***
Roseville Area	9%	92%	89%	36%	12%	34%	31%	36%	8%	4%	13%	***61%***
Lincoln Area	30%	149%	84%	28%	56%	0%	53%	30%	-18%	94%	114%	***74%***
Auburn and East Placer County	1%	55%	8%	-17%	-1%	3%	-18%	-6%	-8%	-2%	-25%	***2%***
Yolo County	7%	24%	26%	7%	-23%	12%	15%	9%	-21%	-16%	24%	***16%***
Yuba-Sutter	-59%	110%	72%	50%	-15%	-3%	400%	-44%	-57%	0%	150%	***40%***
Pilot Hill	-10%	3%	24%	-30%	-9%	-9%	-12%	-4%	14%	-6%	-67%	***-1%***
El Dorado Hills	--	50%	63%	14%	27%	31%	29%	39%	29%	28%	29%	***58%***
Cameron Park-Shingle Springs	--	--	58%	19%	18%	25%	22%	39%	11%	12%	13%	***46%***
Coloma-Lotus	--	--	--	2%	-14%	1%	-18%	11%	-2%	-28%	20%	***5%***
Georgetown	--	--	--	--	-4%	8%	-4%	-19%	-16%	-11%	-44%	***-3%***
West Placerville	--	--	--	--	--	20%	10%	27%	9%	-5%	8%	***17%***
East Placerville	--	--	--	--	--	--	11%	15%	2%	1%	-6%	***9%***
Diamond Springs	--	--	--	--	--	--	--	31%	-1%	-16%	-5%	***20%***
Pollock Pines	--	--	--	--	--	--	--	--	0%	-3%	4%	***1%***
El Dorado High Country	--	--	--	--	--	--	--	--	--	1%	3%	***-4%***
Grizzly Flat	--	--	--	--	--	--	--	--	--	--	-5%	***-2%***
							Total Trips External to El Dorado County				***41%***	
							Total Trips Internal to El Dorado County				***28%***	

Note 1: The total column includes trips with one or both trip-ends in each respective zone. Trips within El Dorado County double counted.

Source: SACOG SACSIM Model

- The **Village of Marble Valley Specific Plan** is a large (2,341 acre) proposed project located south of US 50 between the Bass Lake Road and the Cambridge Road interchanges. It is proposed to ultimately consist of 3,236 dwelling units, 375,000 square feet of office park floor area and 100,000 square feet of "Village Commercial" retail/restaurant/service floor area. While the majority of the project land would be either in open space or low-density residential uses, the project would result in an office park approximately a half-mile south of the Bass Lake Road interchange, as well as a concentration of medium/high-density (up to 24 dwelling units per acre) residential uses and the Village Commercial uses approximately 1.5 miles south of the Bass Lake Road interchange. In the long term, this concentration of new land uses would increase the demand for Dial-A-Ride service, and could spur the need for fixed-route extension. An EIR is currently under preparation.

- The **Lime Rock Valley Specific Plan** area consists of a 740 acre site, two miles south of the Cambridge Road/US 50 interchange. It is proposed to consist of up to 800 single-family homes in a low-density, gated development. While it would increase the need for Dial-A-Ride service in a relatively remote area, it is not expected to generate the need for fixed-route service. An EIR is currently being prepared.

- The **Central El Dorado Hills Specific Plan** consists of two areas. The Serrano Westside Planning Area lies along the east side of El Dorado Hills Boulevard (and El Dorado Hills Shopping Center) between US 50 on the south and just north of Wilson Avenue on the north. Along with open space, civic and low density residential areas, it includes 59 acres of medium density residential (5-19 dwelling units to the acre) and 16 acres of high density residential (15 to 24 dwelling units to the acre), clustered along El Dorado Hills Boulevard near Serrano Parkway. The Pedregal Planning Area lies to the west of El Dorado Hills Boulevard, between Wilson Avenue on the south and Olson Lane on the north. It includes low-density residential areas, open space, and 13 acres of high density residential land use immediately along El Dorado Hills Boulevard. Together, they would add up to 1,028 dwelling units, increasing the demand for transit services in central El Dorado Hills.

Major Planned Roadway Improvements

The following are the major roadway improvements in existing plans that have the potential to result in significant changes in transit operations:

- The Diamond Springs Parkway is planned as a new public road connecting Missouri Flat Road and SR 49, across the northern portion of Diamond Springs. It will introduce a new traffic signal along the Diamond Springs Route, and also will open up new options for future configurations of fixed route transit service in this area. Construction of the Diamond Springs Parkway has been split into two phases. Phase 1A, planned for completion by 2015, will realign SR 49 between Pleasant Valley Road and approximately Bradley Street. Phase 1B, which will construct a new four lane arterial between Missouri Flat Road and SR 49 is currently planned for completion between 2019 and 2023.

- The Silva Valley Interchange is planned on US 50 at Silva Valley Road. It would provide a full-movement interchange, yielding a second access option between US 50 and the El Dorado Hills Town Center area. As such, it could provide options for El Dorado Transit buses

in the area to reduce delays associated with travel along El Dorado Hills Boulevard. The project has been approved and funded, and construction is expected to start in 2014.

- The Western Placerville Interchanges Project will construct an interchange, transit center, park and ride lot, and regional bike trail along US 50 in the City of Placerville. The project includes construction of the Forni Road/Placerville Drive/US 50 Interchange and new on- and off-ramps at the existing Ray Lawyer Drive Overcrossing. In addition to enhanced interchange access, the project will include a 150 space regional transit center and park and ride facility serving El Dorado Transit local bus service and commuter bus service to Sacramento. The park and ride will also serve as an access point for the regional bike path referred to as the El Dorado Trail. Phase 1A, the westbound US 50 onramp and auxiliary lane from the existing Ray Lawyer Drive overcrossing was completed in October of 2013. The City of Placerville is currently advancing engineering design for a Phase 2 project which includes local road improvements to Forni Road, Ray Lawyer Drive and the eastbound US 50 off ramp to Ray Lawyer Drive. Phase 2 also includes construction of the Park and Ride Lot/Transit Center. The remainder of the project; Phase 3; is currently unfunded and includes the replacement and widening of the Forni Road/Placerville Drive US 50 overcrossing, improved operations at Forni Road/Placerville Drive/Fair Lane and US 50, and the westbound US 50 off ramp and eastbound US 50 on ramp at the existing Ray Lawyer Drive overcrossing.

- High Occupancy Vehicle (HOV) lanes on US 50 were recently completed as far east as the Cameron Park Drive interchange. Phase 2B of the HOV would extend the lanes further eastward to Ponderosa Road. It will require reconstruction of the Cameron Park Interchange to provide space for the additional lanes. No fund source has been identified for the approximately $50 million in costs, and as a result a schedule for the extension of HOV lanes has not been set. Phase 3, which is currently not funded or scheduled, would ultimately extend the HOV lanes to Greenstone Road in Shingle Springs.

- Other US 50 Interchange improvements are planned at Cambridge Road (by 2035), Bass Lake Road (by 2035), Cameron Park Drive (by 2020), El Dorado Hills Boulevard (by 2035), El Dorado Road (by 2035) and Missouri Flat Road (by 2035)

- The Capital SouthEast Connector Joint Powers Authority (JPA) was formed in December 2006 when the cities of Elk Grove, Folsom and Rancho Cordova, as well as El Dorado and Sacramento Counties, formalized their collaboration to proceed with planning, environmental review, engineering design and development of a new roadway connecting El Dorado Hills and Folsom with Elk Grove. Initially called the Elk Grove-Rancho Cordova-El Dorado Connector Project, it is now called the Capital SouthEast Connector. The Sacramento Area Council of Governments (SACOG) oversaw the early planning stages.

  The Connector is a planned 35-mile parkway that would span from Interstate 5 south of Elk Grove to Highway 50 in El Dorado County, just west of El Dorado Hills. Communities in Western El Dorado and Sacramento Counties will be efficiently linked with Folsom, Rancho Cordova and Elk Grove. Currently, there are three alternative routes being analyzed. The intent of this Connector would be to reduce congestion on Highway 50 and reduce travel time between El Dorado Hills and Elk Grove. Actual construction is currently undetermined.

KEY PLANNING DOCUMENTS

A key step in any physical planning process – particularly one that considers a longer planning horizon – is the careful consideration of other ongoing planning processes in the area. This section presents a review of these recent and concurrent planning studies, and considers how each impacts the potential for future transit services.

El Dorado County General Plan and Targeted General Plan Amendment

The *General Plan* provides long-range direction and policy for the use of land within El Dorado County. It provides a mechanism through which the County can focus on the issues of greatest local concern as well as a basis for rational decision-making regarding long-term physical development. The transportation and circulation element of the General Plan contain objectives and policies pertaining to motorized and non-motorized transportation. The General Plan was developed in 2004, with several updates in the interim. The Transportation Division of the El Dorado Community Development Agency is currently developing a targeted General Plan Amendment which will specifically address transportation needs. As amended in January 2009, key transit-related goals and policies in the El Dorado County General Plan are as follows.

> *GOAL TC-2: To promote a safe and efficient transit system that provides service to all residents, including senior citizens, youths, the disabled, and those without access to automobiles that also helps to reduce congestion, and improves the environment.*
>
> *Policy TC-2a: The County shall work with transit providers to provide transit services within the county that are responsive to existing and future transit demand and that can demonstrate cost-effectiveness by meeting minimum fare box recovery levels required by state and federal funding programs.*
>
> *Policy TC-2b: The County shall promote transit services where population and employment densities are sufficient to support those transit services, particularly within the western portion of the county and along existing transit corridors in the rural areas.*
>
> *Policy TC-2c: The County shall cooperate with other agencies in the identification and development of transit corridors.*
>
> *Policy TC-2d: The County shall encourage the development of facilities for convenient transfers between different transportation systems (e.g., rail-to-bus, bus-to-bus).*
>
> *Policy TC-2e: The County shall work with the Tahoe Regional Planning Agency, Tahoe Transportation District, California Department of Transportation, and transit service providers to pursue the development of waterborne transportation for transit services in the Tahoe Basin.*
>
> *Policy TC-2f: The County shall work with the El Dorado Transit Authority and support the provision of paratransit services and facilities for elderly and disabled residents, and those of limited means, which shall include bus shelters, bus stops, and ramps at stops.*

El Dorado County Regional Transportation Plan (RTP) 2010-2030, El Dorado County Transportation Commission (EDCTC), November 2010

The RTP addresses improvements to roadway, transit, aviation, goods movement, non-motorized transportation, transportation systems management, and intelligent transportation systems sectors of the transportation network, along with financial strategies. The key goal regarding transit services is to "*Promote effective, convenient, and desirable public transit for residents of and visitors to El Dorado County"*

Transit improvements identified in the RTP consist of the following:

2010 – 2020

- El Dorado Hills fixed route circulator
- Extension of local route service for one additional hour in the evening
- Sunday service on local routes
- Sunday taxi voucher program, replacing Sunday Dial-A-Ride
- Modify the Placerville Route to serve Eskaton
- Provide commuter service from Iron Point Station in Folsom to El Dorado Hills
- Reinstate commuter service to Rancho Cordova
- Provide service between Georgetown, Cool and Auburn one day a week
- Expand Dial-A-Ride capacity

2020 and Beyond

- Implement the Express/Community Route plan for US 50 service
- Coordinate with other transit services
- Potential future service to Sierra-At-Tahoe and South Lake Tahoe
- Extend light rail or enhanced bus service from Sacramento County into El Dorado County
- Develop a multimodal transit center and regional fueling station near the El Dorado / Sacramento county line

El Dorado County Bicycle Transportation Plan – 2010 Update, EDCTC, November 2010

This plan calls for a bikeway system slightly over 280 miles in length. A key element of the plan is "The El Dorado Trail" -- a Class I path connecting Placerville with Sacramento County, with connections to existing Class I facilities in the Placerville area, new Class I facility east to Camino, and Class III onstreet segments through downtown Placerville. It also calls for an extensive network of bicycle facilities in the developed communities, particularly in the El Dorado Hills area. Finally, it identifies the need for additional bike parking and storage and park-and-ride lots.

El Dorado Hills Community Transit Needs Assessment, LSC, May 2013

The El Dorado Hills Needs Assessment and Highway 50 Corridor Operation Plan was commissioned by the El Dorado County Transportation Commission as a dual purpose project. In the first part of the study, LSC Transportation Consultants, Inc. evaluated the need for

transit service in El Dorado Hills. The primary recommendation from this portion of the study was to develop a taxi voucher program.

The second part of the study was development of a plan to revise overall El Dorado Transit service along the Highway 50 corridor between Pollock Pines on the east and Folsom on the west. When implemented, the service plan will:

- Expand service along the entire US 50 corridor between Pollock Pines and Folsom to hourly service, including improved service between the two Folsom Lake College campuses and between the El Dorado County Government Center and the communities in the western portion of the County.

- Enhance service within Cameron Park by providing consistent hourly service.

- Improve on-time reliability of Placerville Service.

These recommendations are addressed in this current document.

Metropolitan Transportation Plan / Sustainable Community Strategies, April 2012, Sacramento Area Council of Governments (SACOG)

This plan lays out a transportation and land use framework for the Sacramento Region (including Western El Dorado County) through 2035. In addition to guiding transportation decision making, it addresses the requirements of the Sustainable Communities and Climate Protection Act (SB 375). Projects included in this plan that impact the study area consist of carpool lanes on US 50 as far east as Greenstone Road, as well as new local bus service on the south side of US 50 between Hazel Avenue and El Dorado Hills (El Dorado Hills Boulevard), serving a proposed new residential and employment development in the area.

Folsom Stage Line Short-Range Transit Plan (SRTP): Fiscal Years 2012- 2017, June 2012, SACOG

This plan calls for adjustment of schedule times, and investigation of a volunteer program. It notes that park-and-ride spaces along Light Rail in Folsom are limited, but does not include plans for expansion. The document does not indicate any changes that would particularly impact Western El Dorado County transit programs.

Sacramento Regional Transit District Short Range Transit Plan (SRTP) FY 2012-FY 2022, December 2012, Regional Transit

This plan does not include any expansion of bus service closer to Western El Dorado County than presently exists. It does indicate that improvement to the signaling infrastructure, planned for completion in 2014, is underway that will allow the implementation of limited stop service on the Gold Line Light Rail Transit (LRT) between Folsom and Downtown. Beyond the SRTP period, tables in this document indicate that in the period from 2017 to 2042, $100M is allocated for double-tracking of the existing Sacramento Regional Transit (RT) Gold Line between Hazel and Folsom, as well as $576M for “RT Gold Line extension to Western El Dorado County.”

El Dorado County Transit Authority Park-and-Ride Master Plan, November 14, 2007, *Dokken Engineering*

The purpose of this *Park-and-Ride Master Plan* was to identify the policies, actions, and financing needed to ensure a continuous, adequate supply of parking capacity in Western El Dorado County to support El Dorado Transit's commuter bus service, as well as carpooling, vanpooling, and other forms of shared rides. The Plan estimates funding needs to be almost $45 million for the following projects:

- $33.3 million to construct new park-and-ride capacity. Of this amount, $7.9 million should be funded by El Dorado Transit.

- $140,000 in priority operational improvements at the Ponderosa Road facility.

- $1.3 million for system-wide deferred maintenance, including $300,000 in high-priority deferred maintenance on existing facilities operated by El Dorado Transit.

- $10.0 million to fully fund annual operations and maintenance, and long-term maintenance. An average of $112,057 per year is needed for existing facilities. This amount of annual operation and maintenance costs is expected to grow to $431,347 per year as new facilities are constructed. Of these amounts, El Dorado Transit's annual maintenance responsibility for facilities it operates is currently $57,953 growing to almost $200,000 per year in the next 20 years.

Furthermore, there is a planned project to construct a 150 stall park and Ride Lot on the south side of US Highway 50, between the proposed Ray Lawyer Drive eastbound US 50 off ramp and re-aligned Forni Road. This project is being completed in conjunction with the Western Placerville Interchanges Phase 2 project. At the March 6, 2014 meeting, EDCTC programmed Congestion Mitigation and Air Quality (CMAQ) Funds to the Ray Lawyer Drive Park and Ride Lot. Completion of the project will require right of way acquisition, site preparation, paving and striping. The park and ride will include security lighting for user safety, two bus shelters and trash receptacles. The park and ride will serve seven intercity commuter bus routes and up to four El Dorado Transit local routes. In addition, this location will provide substantial special event parking for events such as the El Dorado County Fair. The park and ride will also serve as an access point for the regional bike path referred to as the El Dorado Trail. Project delivery is being coordinated with the City of Placerville. The project will be completed in 2017 in conjunction with the City of Placerville's Western Placerville Interchange Phase 2 project.

Coordinated Public Transit – Human Services Transportation Plan, August 28, 2008, *Nelson\Nygaard*

The *Coordinated Public Transit-Human Services Transportation Plan for Western El Dorado County* was sponsored by Caltrans. It was part of a larger planning effort overseen by Caltrans on behalf of 23 counties in non-urbanized areas within the State of California. The project included an Existing Conditions Report, which described existing transportation services and programs, and identified service gaps and needs. This was followed by identification of potential strategies and solutions to mitigate service gaps, and development of a plan to implement those strategies.

The highest priority strategies included the following:

- Provide sufficient resources to allow the Consolidated Transportation Services Agency (CTSA) to negotiate interagency agreements, providing for coordinated use of assets and operating funds
- Provision of contract maintenance through CTSA
- Expand Dial-A-Ride Service, either through increased service hours (El Dorado Transit as operator) or through agreements with human service agencies (El Dorado Transit as CTSA)
- Increase days of service to Sacramento for medical and social service appointments
- Provide travel training for potential passengers to use existing commuter service to Sacramento for connections/transfers
- Identify agencies or community leaders to develop and coordinate volunteer programs, including the recruitment, screening, training and managing of volunteers
- Identify or create new insurance programs to eliminate exposure of volunteers and agencies to inappropriate levels of liability
- Coordinate arrangements for purchase of capital equipment, including vehicles to help tap available funding, e.g. Federal Transit Administration (FTA) Section 5310
- Use older vehicles for less intense social service agency transportation needs
- Expand traditional transit service through addition of reverse commute. Could be done by adjusting trip times for returning buses from Sacramento to serve El Dorado Hills and Placerville

The projects identified in the *Coordinated Public Transit-Human Services Transportation Plan* are intended to improve the mobility of individuals who are disabled, elderly, or of low-income status. The plan focused on identifying needs specific to those population groups as well as identifying strategies to meet their needs.

Public Transit and Human Services Transportation Coordinated Plan, SACOG, January 5, 2012

The SACOG Coordinated Plan is required under the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of August 2005. The SACOG Public Transit and Human Services Transportation Coordinated Plan is an update of the 2008 plan. The plan was developed to show how human service agencies work together with transportation providers to address the transportation needs of people with disabilities, seniors, and people with limited incomes. The SACOG Coordinated Plan is meant to broaden the dialogue and support further collaboration between human service agencies and transportation providers to link people with the transportation services that they need.

US Highway 50 Corridor System Management Plan (CSMP), May 2009, with status update in July 2012, *Caltrans*

A CSMP is a comprehensive, integrated management plan for increasing transportation options, decreasing congestion, and improving travel times in a transportation corridor. A CSMP includes all travel modes in a defined corridor: highways and freeways, parallel and connecting roadways, public transit (bus, bus rapid transit, light rail, intercity rail) and bikeways, along with intelligent transportation technologies, which include ramp metering, coordinated traffic signals, changeable message signs for traveler information, incident management, bus/carpool lanes and car/vanpool programs, and transit strategies. Each CSMP identifies current management strategies, existing travel conditions and mobility challenges, corridor performance management, planning management strategies, and capital improvements.

Specific strategies for the Highway 50 Corridor include:

- High occupancy vehicle (HOV) lanes from Watt Avenue to Sunrise Boulevard (completed)
- White Rock Road expansion from Grant Line Road to Prairie City Road (ultimately, part of the Southeast Connector)
- HOV lanes from El Dorado Hills Boulevard to Bass Lake Road and to Cameron Park (completed)

CITIZEN PARTICIPATION PROCESS INPUT

The California Transportation Development Act (TDA) requires EDCTC, as the Regional Transportation Planning Agency, to ensure the establishment and implementation of a citizen participation process. Since El Dorado Transit currently claims all available TDA funds for transit purposes, the formal unmet needs process does not apply. In lieu of this process, EDCTC conducts a citizen participation process public hearing for public transportation. Pertinent comments received and responses for the past two hearings are summarized below.

May 2012 Citizen Participation Process

In May 2012, EDCTC staff received the following two comments related to transit at the public hearing:

> **Comment:** A woman noted that she is new to the area and said that she doesn't know what she would do without the bus service. She is hopeful that bus services are not cut because a disability prevents her from driving. She also indicated that it is challenging for her to use Dial-A-Ride because of the requirement to schedule trips three days in advance. She said that taking the buses away would be especially problematic, as many people are dependent on the existing services.
>
> *Response:* El Dorado Transit does not have any current plans to reduce or cut existing transit services. El Dorado Transit accepts Dial-A-Ride requests starting three weekdays in

advance until the day of the actual trip. Three day advance scheduling is not required; however, rides are scheduled on a first-come, first-serve basis with priority given to seniors and persons with disabilities. The service often runs at or near capacity. Same day rides are granted when space is available due to a cancellation. The ability to schedule Dial-A-Ride up to three days in advance was adopted in 2006 as a result of a user focus group recommendation.

Comment: A woman commented that she would very much like to see a bus service in El Dorado Hills. She mentioned that bus service in El Dorado Hills was mentioned on the El Dorado Hills Chamber of Commerce "walk about." She suggested that a route that goes to the business park and all the apartments, villages, shopping, post office, banks, etc. would be very helpful to those who do not or cannot drive. She also noted that it would benefit the businesses in El Dorado Hills. She said that parents of children in before/after school programs ask her about bus service for their children. She also noted that the school districts do not offer this service in El Dorado Hills.

Response: EDCTC was successful in securing grant funds from the California Department of Transportation's 2011/12 Transit Technical Planning Assistance (Section 5304) Grant program to develop the El Dorado Hills Community Transit Needs Assessment and US 50 Corridor Transit Operations Plan. The complimentary, two-part planning effort focused primarily on the following tasks:

1. Facilitate the necessary public outreach, operational, and financial analysis to determine the feasibility of implementation of public transit service in El Dorado Hills;

2. Develop a detailed transition plan that supports the implementation of a US 50 corridor based transit system that will improve the convenience and efficiency of El Dorado Transit's operations.

May 2013 Citizen Participation Process

The most recent process was conducted in May 2013. Only one comment was received, complementing the transit program and offering gratitude for the service.

Chapter 3
Transportation Services

BACKGROUND

Modern public transit services have been available in Western El Dorado County only since the late 1970s. Service was provided to the elderly and disabled population of greater Placerville until 1980, when it was opened to the general public. The creation of the El Dorado County Transit Authority (El Dorado Transit) in 1993 has proven to be an important milestone in the provision of an effective and well-accepted public transit system. Since then, a well-established public transit system has developed, serving a wide region of El Dorado County as well as commuter and non-emergency medical services to Sacramento and connecting service to Folsom.

El Dorado Transit is formed through a joint powers agreement between the County of El Dorado and City of Placerville. El Dorado Transit is governed by a five-member Board of Directors: three members appointed by the County Board of Supervisors and two members appointed by the Placerville City Council. Additionally, a transit advisory committee, made up of ten members representing both transit users and advocates, is responsible for reviewing the operation of the transit system, monitoring levels of service based upon budgets, and providing advice to the Executive Director. The Executive Director supervises a staff of 50.5 full-time equivalent employees, including the Operations Manager, Human Resources/Administrative Services Manager, Fiscal Administration Manager, office and accounting staff, Transportation Supervisors, a Planning/Marketing Manager, Transit Scheduler and Dispatchers, Mechanics, and 27.5 Full-Time Equivalent (FTE) Transit Drivers. Additionally, El Dorado Transit typically has approximately 15 seasonal employees (referred to as "extra help" drivers). An organization chart is shown as Figure 10.

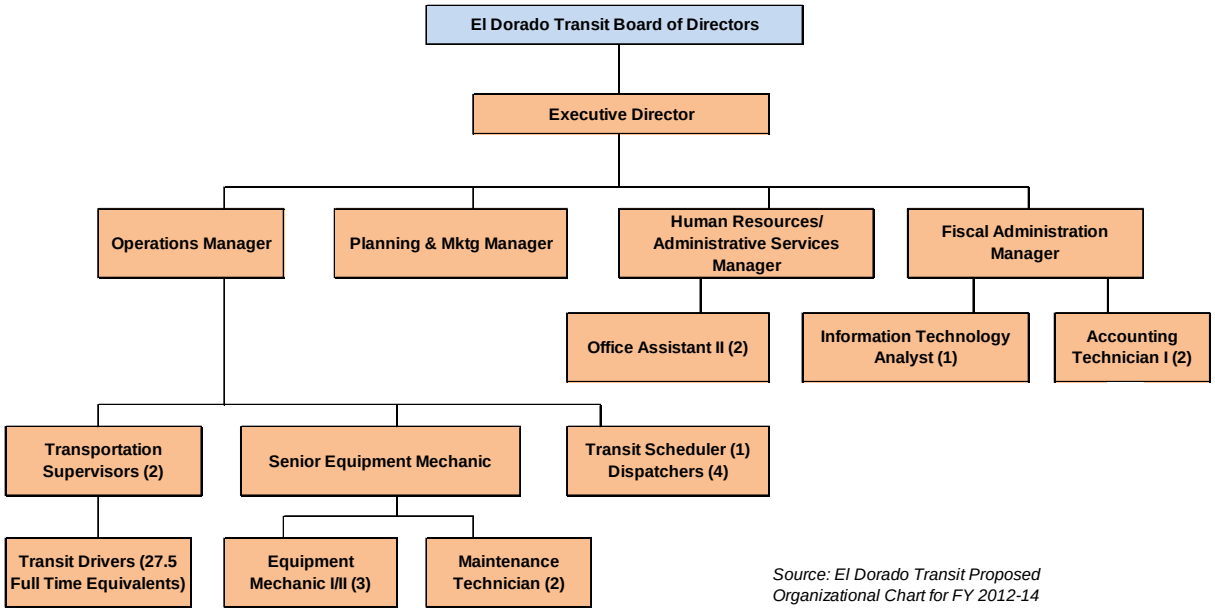
El Dorado Transit operates a wide range of services, including local community routes, demand response, intercity commuter service, medical transportation and contracted social service transportation. The following describes each of the existing services in detail, while Figure 11 depicts the routes graphically.

EXISTING EL DORADO TRANSIT SERVICES

Local Community Routes

Placerville Fixed Routes – El Dorado Transit operates an East Route and a West Route along the US 50 Corridor in the City of Placerville. These routes provide fixed-route service mainly along the US 50 Corridor between the Missouri Flat Transfer Center and Point View Drive on the eastern side of Placerville. The East and West Routes are essentially directional trips of the same loop, although the routes do serve different stops between Spring Street and Point View Drive. Service is provided Monday through Friday on one hour headways from 7:00 AM to 6:00 PM. Some notable stops along the Placerville routes are: Human Services, El Dorado County Fairgrounds Park-and-Ride, Mother Lode Rehabilitation Enterprises, Inc. (M.O.R.E.) workshop, Marshall Hospital, Rite Aid, and Home Depot. Request stops are available along Green Valley Road, Cold Springs Road, Canal Street, Clay Street, and Cedar Ravine Road. As discussed below, complementary paratransit service is provided in Placerville, and the Placerville routes do not deviate.

FIGURE 10: El Dorado Transit Organization Chart



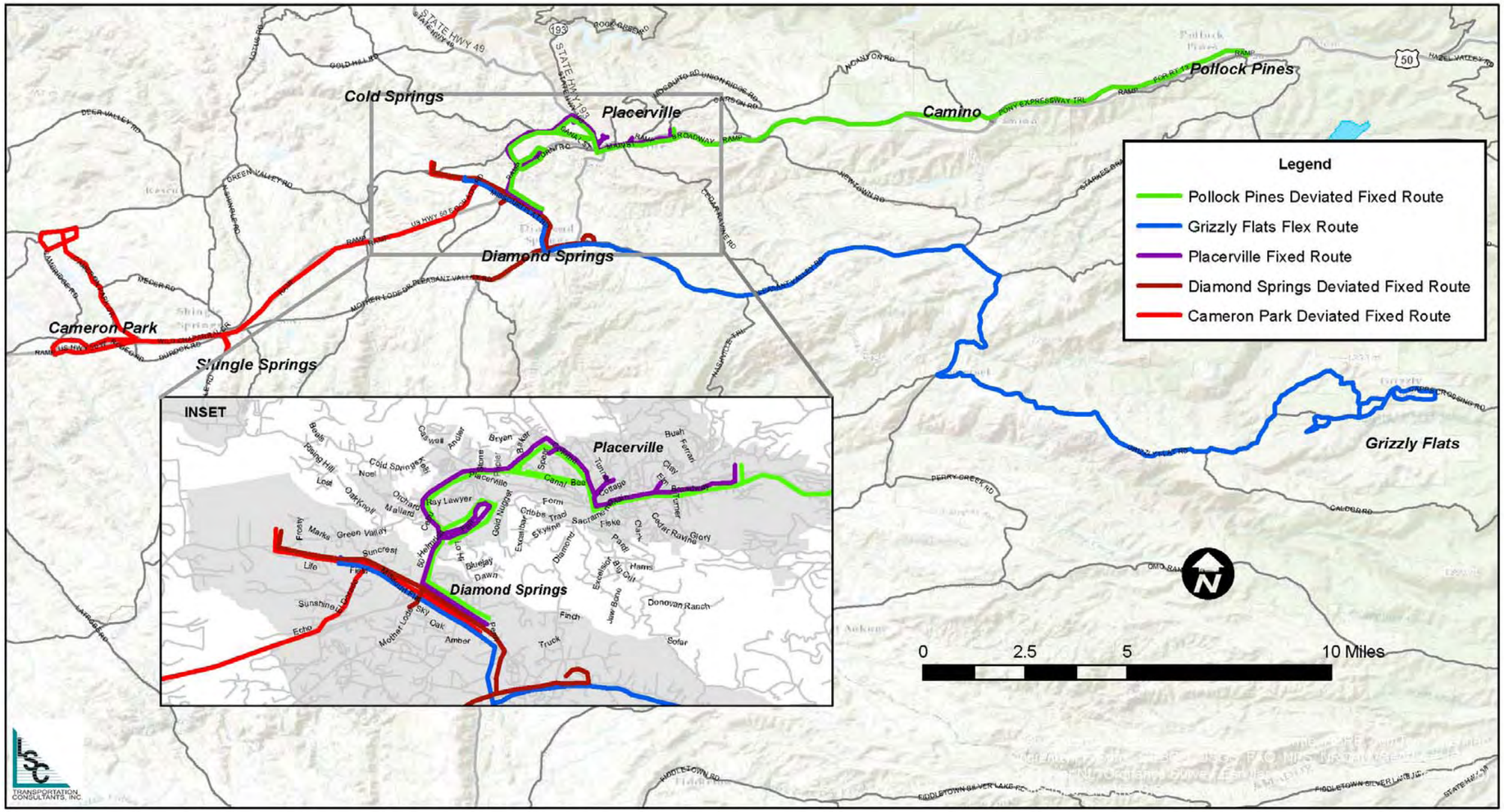
Source: El Dorado Transit Proposed Organizational Chart for FY 2012-14

Pollock Pines Deviated Fixed Route – The Pollock Pines route provides scheduled transit service along the US 50 Corridor between the Missouri Flat Transfer Center in Diamond Springs, the Camino area, and the Safeway Plaza on Pony Express Trail in Pollock Pines. Service is provided Monday through Friday between 6:30 AM and 5:30 PM. Route deviations are provided for Americans with Disabilities Act (ADA) passengers up to three-quarters of one mile from the designated route. ADA route deviation requests can be scheduled the previous service day, though same day requests are accommodated when possible.

Diamond Springs Deviated Fixed Route – The Diamond Springs Route begins at the Missouri Flat Transfer Center and follows a clockwise loop around Diamond Springs on Pleasant Valley Road, back to the Missouri Flat Transfer Center, then across highway 50 serving Folsom College, Safeway and Prospector Plaza. The Diamond Springs Route takes about one hour to operate. Service for this route is provided hourly from 7:00 AM to 6:00 PM on Monday through Friday. The Diamond Springs Route serves the Diamond Springs Mobile Home Park and El Dorado Transit Offices (via the Central Transit Center, located at Commerce Way between Enterprise Drive and Pleasant Valley Road). Route deviations are provided for registered ADA passengers up to three-quarters of a mile from the designated route.

Cameron Park Deviated Fixed Route – The route begins at the Missouri Flat Transfer Center in Placerville and first serves the Folsom Lake College/El Dorado Center, then continues to the Shingle Springs Tribal Health clinic and Red Hawk Casino, before continuing on to Cameron Park. On the way to Cameron Park, the route will deviate to Durock Center and Market Court by request. After serving Cameron Park in a clockwise direction, the route serves the Cambridge Park and Ride and returns via Country Club Drive. The Cameron Park Route operates four runs daily and one morning express run with limited stops. Deviations are not permitted on the express run.

Figure 11
El Dorado Transit Local and Deviated Fixed Routes



This page left intentionally blank.

Saturday Express Deviated Fixed Route – This route operates between the Missouri Flat Transfer Center in Diamond Springs and the Safeway Plaza on Pony Express Trail in Pollock Pines. An eastbound bus leaves from the Missouri Flat Transit Center at 9:00 AM, and a westbound bus leaves from Safeway Plaza on Pony Express Trail at 9:00 AM, and both buses operate on hourly headways from 9:00 AM to 5:00 PM.

ADA Complementary Paratransit for Local Routes – "Complementary Paratransit" refers to door-to-door, on-demand service ("paratransit") which "complements" a fixed route by ensuring that persons with disabilities in the vicinity of the route have access to public transit services under the requirements of the Americans with Disabilities Act. El Dorado Transit's complementary paratransit service is compliant with the transportation requirements of the ADA and is only available to persons who are unable to use the fixed Placerville route. El Dorado Transit complementary paratransit provides curb-to-curb transit service during the same hours and days as the Placerville Route. Passengers may reserve a ride up to 14 days in an advance. As is typical for paratransit services, this service has a low productivity with an average of 2.0 passengers per hour.

Rural Route

Grizzly Flat Route – The Grizzly Flat Route provides two round-trips on Thursdays between Prospector Plaza on Missouri Flat Road and the Grizzly Flat area southeast of Placerville. The bus is only operated when there are a minimum of five (5) passenger requests for service. Eastbound runs depart at 7:50 AM and 3:00 PM, and westbound runs depart at 8:26 AM and 3:36 PM. The afternoon westbound run from Grizzly Flat to Placerville is by request only. Route deviations are provided for ADA passengers up to three-quarters of one mile from the designated route. ADA route deviation requests can be scheduled the previous service day, though same day requests are accommodated when possible.

Commuter Services

The Sacramento Commuter Service provides eleven departures in each direction Monday through Friday between El Dorado County and downtown Sacramento. Morning departures from El Dorado County locations are scheduled from 5:10 AM to 8:00 AM, and afternoon eastbound departures from Sacramento occur from 2:40 PM to 6:00 PM. A reverse commuting service is offered for persons commuting from Sacramento to El Dorado County destinations (using bus runs that would otherwise be operated as "deadhead" trips to position buses and drivers). Reverse commutes are provided on Routes 6 and 7, Monday through Friday. Morning reverse commute runs depart Sacramento at 7:00 AM and 8:57 AM. Afternoon reverse commute runs depart the Central Park-and-Ride (on Commerce Way where El Dorado Transit offices and operations are located) at 1:50 PM and the El Dorado County Fairgrounds Park-and-Ride at 4:40 PM. The Commuter routes serve the Central Park-and-Ride; Placerville Station; El Dorado County Fairgrounds Park-and-Ride; Rodeo Road Park-and-Ride; Cambridge Road Park-and-Ride; and El Dorado Hills Park-and-Ride.

The Sacramento Commuter service uses a total of ten vehicles. All buses are based out of the El Dorado Transit facility in Diamond Springs. In the morning, nine vehicles are used to operate eleven commuter routes and two reverse commuter routes. All but four buses, which are

parked in Sacramento during the day, travel back to the El Dorado Transit operations facility after the morning run. Drivers of the four buses left in Sacramento are shuttled back to El Dorado County in the returning buses. In the afternoon, six buses travel west to Sacramento to operate (along with the four buses staged downtown) eleven, Commuter runs, and two reverse commuter routes.

Iron Point Connector

The Iron Point Connector (IPC) Route provides direct service from El Dorado County to Folsom with connections to Sacramento Regional Transit light rail on weekdays. This route runs twice in the morning and twice in the afternoon from the Central Transit Center to the Iron Point Light Rail Station in Folsom. Other stops include the Missouri Flat Transfer Center, Red Hawk Casino, Ponderosa Road Park-and-Ride, Cambridge Road Park-and-Ride, and El Dorado Hills Park-and-Ride. Service is operated between 6:00 AM and 7:30 PM.

Dial-A-Ride

The Dial-A-Ride service is a demand response service designed for elderly and disabled passengers, with limited access available for the general public. The service is available on a first-come, first-serve basis Monday through Friday between the hours of 7:30 AM and 5:00 PM, and between 8:00 AM and 5:00 PM on Saturdays and Sundays. The dial-a-ride service area consists of twelve geographic zones stretching from El Dorado Hills to Pollock Pines and from Garden Valley to the southern portions of the county, as shown in Figure 12. Ride requests may be made on weekdays between 9:00 AM and 3:00 PM up to three days in advance or by subscription. Preference in scheduling is provided to elderly and disabled passengers, with other ride requests accommodated on a space available basis starting at 3:00 PM on the day prior to the ride request. In addition, service to the general public is not provided to the most outlying zones.

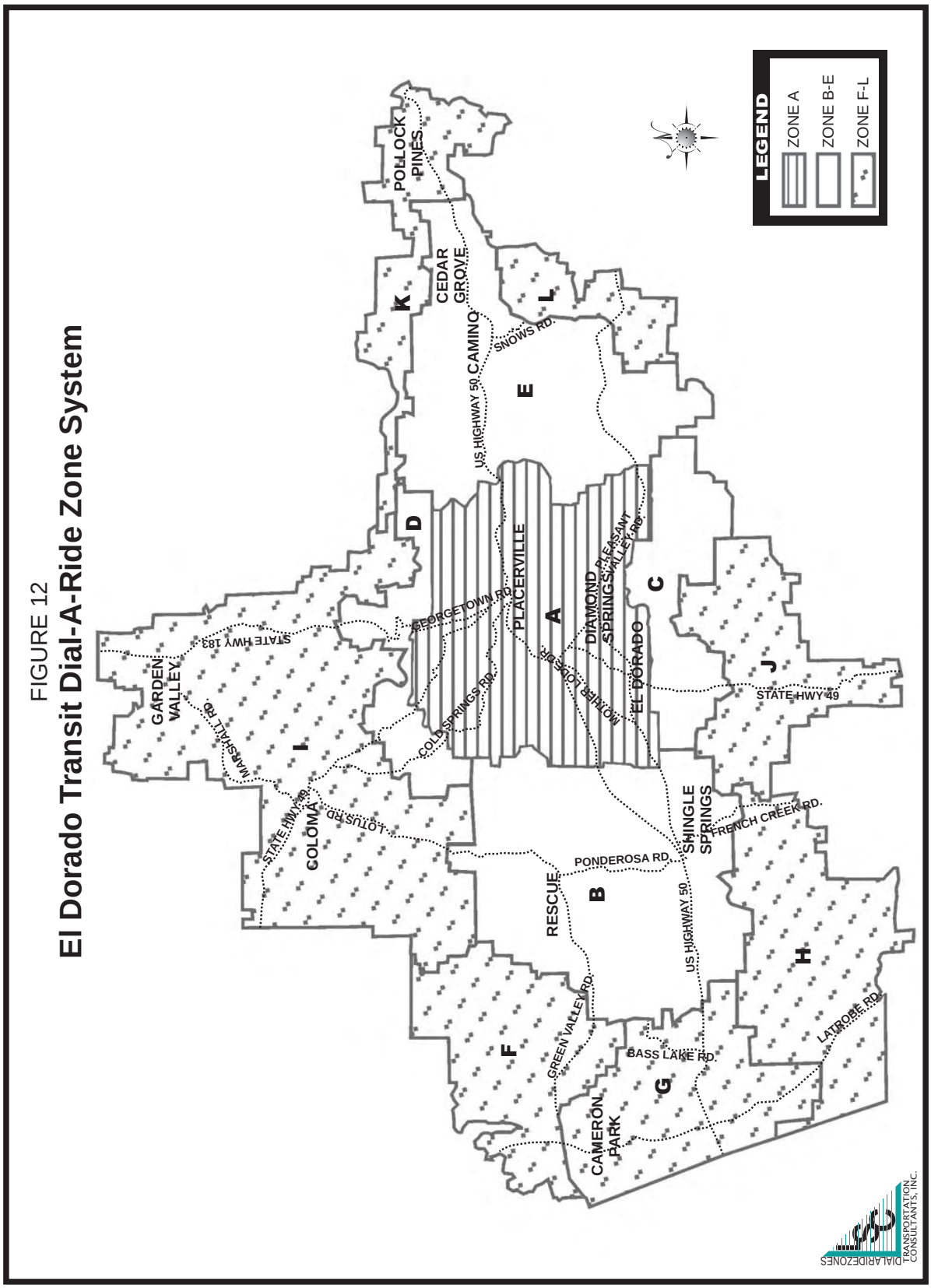
SAC MED Non-Emergency Medical Appointment Transportation

The SAC MED is a public shared-ride non-emergency medical appointment transportation service for seniors, disabled, and general public passengers, serving medical facilities in Sacramento and Roseville. Ride requests are scheduled on a first-come, first-served basis, and confirmed with a call back by 4:00 PM the day before the scheduled ride. Reservations for SAC MED must be made four days in advance and can be scheduled up to fourteen days in advance. The service operates Tuesdays and Thursdays, with the destination arrival times dependent upon the number of appointments scheduled for that day. Passenger medical appointment times must be between 10:00 AM and 2:00 PM. SAC MED pick up and drop off locations in El Dorado County are:

- Placerville Station
- Prospector Plaza Bus Stop on Missouri Flat Road
- Ponderosa Road Park-and-Ride
- Bel Air Shopping Center Bus Shelter, Cameron Park
- El Dorado Hills Park-and-Ride

FIGURE 12

El Dorado Transit Dial-A-Ride Zone System



Special Social Service Transportation

El Dorado Transit also provides a range of subscription and contracted activity program services:

- **Senior Day Care Centers** are located in Placerville and El Dorado Hills, and operated by the El Dorado County Health and Human Services Agency. This program provides close supervision and assistance with a full day of scheduled therapeutic activities for homebound individuals with mental and physical impairments. Subscription Dial-A-Ride service to and from the Center is provided by El Dorado Transit.

- **ALTA California Regional Center (ALTA)** assists persons with developmental disabilities, including infants at risk and their families by providing and securing those services and supports necessary to maximize opportunities and choices. ALTA contracts with public transit, private taxi companies and the school district to provide transportation for their clients in the Western El Dorado County area. Alta is the entity that organizes contract transportation with El Dorado Transit for the operation of the M.O.R.E routes (discussed below) and dial-a-ride trips to employment opportunities in Rancho Cordova for a group of Alta clients.

- **Mother Lode Rehabilitation Enterprises, Inc. (M.O.R.E.)** provides a variety of services including vocational training, job placement, independent living training, semi-independent residential program, community integration, life skills, and social/vocational counseling and behavior management as needed. In addition to its contract with El Dorado Transit for transportation, M.O.R.E. operates a 15-passenger van providing daily transportation to twelve clients residing at Pathways, a group home in Placerville. Transportation is provided between M.O.R.E. and Pathways, and to and from shopping, jobs or recreational activities. M.O.R.E client transportation service requires up to seven El Dorado Transit cutaway vans at peak times.

Special Event Services

In addition, El Dorado Transit typically operates several special event shuttle services over the course of the year:

- The **Apple Hill® Shuttle** service is a special high-profile service providing shuttle transportation for visitors to the Apple Hill® ranches every weekend during the month of October. It is intended to address traffic and parking issues. Shuttle buses depart from two locations from 10:00 AM to 5:00 PM every 15 to 30 minutes. This fare-free service is financed through grants from the El Dorado County Air Quality Management District and the Apple Hill® Growers Association. However, no application was submitted for the next cycle, so this service will not be provided in 2014 or 2015 and possibly beyond.

- El Dorado Transit operates an **El Dorado County Fair Shuttle.** The shuttle transports fair patrons between remote parking sites and the fair during all hours of the event. This fare-free service is financed through grants from the El Dorado County Air Quality Management District for this service.

DISCONTINUED TRANSIT SERVICES

It is worthwhile to review previous transit services, as a basis for understanding transit needs. Discontinued El Dorado Transit services consist of the following:

- Between July 2004 and July 1, 2006, El Dorado Transit provided service to major employment centers in **Rancho Cordova.** Commuter Routes 8 and 9 were operated in the morning and afternoon commute period using a 25-passenger bus. Departures at 5:00 AM and 6:35 AM from El Dorado County Fairgrounds Park-and-Ride arrived at Mayhew Road and Franchise Tax Board Court at 5:57 AM and 7:30 AM. The afternoon runs left Mayhew Road and Franchise Tax Board Court at 3:40 PM and 5:20 PM. This service was discontinued due to poor ridership and route performance. Average daily ridership on these routes ranged from two to four passengers per day for each run, with only 2.8 one-way passenger trips per vehicle-hour of service(a passenger trip is defined as one person making a one-way trip; therefore, 3 people on a one-way bus trip would equal 3 passenger trips).

- The **Georgetown Divide Route** was a 12-month demonstration project that began in February 2001, serving the communities of Georgetown, Greenwood, Cool, Pilot Hill, and Garden Valley. The service initially provided 3 round-trips on Tuesdays and Thursdays but changed to request only service on July 17, 2001 due to low ridership. This service was discontinued in February 2002.

- The **El Dorado Hills Shuttle Bus** was implemented as a result of the annual unmet transit needs process during FY 1996/97. This 12-month demonstration project operated during FY 1997/98, serving the El Dorado Hills including El Dorado Hills Business Park, Town Center, Raley's Center, Oak Ridge High School, The Village, El Dorado Hills Community Service District, Sam's Town Park-and-Ride, and Prospector Plaza. Service was provided Monday through Friday between 5:25 A.M. and 6:20 P.M. The initial five daily runs were later reduced to two runs due to poor ridership. Annual ridership totaled 823, with a 2.3 percent farebox ratio.

- **South County Route –** This rural route began service in FY 2005/06 as a demonstration project to connect the communities of Mt. Aukum, Somerset, and Fairplay to Placerville. One morning and one afternoon round trip are operated between the Missouri Flat Transfer Center, Bistro/Fairplay in Somerset, and Prospector Plaza in Placerville on Tuesdays. Due to ridership averaging less than 200 passenger-trips per year, this service was discontinued in 2008.

- The **Main Street Shuttle,** which primarily transported prospective jurors between free parking at the Placerville Station and the Courthouse in downtown, was discontinued in July 2012. Jurors are allowed to ride two local routes between the Placerville Station and Courthouse in Placerville.

Existing Service Calendar

El Dorado Transit observes the following holidays:

- New Year's Day
- Martin Luther King, Jr. Day
- President's Day
- Memorial Day

- Independence Day
- Labor Day
- Columbus Day (limited service)
- Veteran's Day
- Thanksgiving Day and the day after Thanksgiving
- Christmas Eve (limited service)
- Christmas Day

Routes are not operated on these days, or, in the case of Columbus Day and Christmas Eve, routes are modified.

Existing Fare Structure

Table 18 presents the fare structure for each specific El Dorado Transit service. As shown, general public fares are $1.50 per one-way trip or $60 for a month pass on local community routes. Discounts of 50 percent are offered to seniors/disabled and students. Route deviations and complementary paratransit cost an additional $0.50 per person per route.

Fares on the Dial-A-Ride are determined by geographic zone and range, as shown in Table 18. The General Public base fare Zone A is $4.00, with an additional fare of $1.00 per zone crossed. The General Public fare in Zones B through E is $5.00, with an additional $1.00 fare per zone crossed. Elderly and disabled fares are discounted 50 percent. Zone F through L are only available to seniors and disabled with a fare of $5.00 with an additional $0.50 per zone crossed.

Commuter fares can be purchased for El Dorado Transit services, or a combination of El Dorado Transit and Sacramento Regional Transit services, as shown in Table 18. Base fares on El Dorado Transit commuter routes are $5.00 per one-way trip. A prior transfer agreement between El Dorado Transit and Sacramento Regional Transit was discontinued at Sacramento Regional Transit's request, and passengers are required to pay full fares when transferring without the two-system pass. However, students with a valid Los Rios Community College or California State University Sacramento students or employee (CSUS only) ID can receive a $1.00 discount per trip off the regular cash commuter fare and can ride for free on El Dorado Transit's local bus routes within El Dorado County during school sessions. Passes are available for $180 per month for El Dorado Transit or $210 per month for El Dorado Transit as well as Sacramento Regional Transit. Additionally, El Dorado Transit offers an "Inter-County Fare" on commuter routes at this same rate for trips between the park-and-ride lots.

The Iron Point Connector (IPC) has a base fare of $2.50 per passenger trip (discounted to $1.25 for seniors and disabled); $90.00 for a monthly pass; and $130 for an IPC/Sac RT combination pass.

El Dorado Transit will be entering into a universal fare card program with Sacramento Regional Transit that will involve the purchase of smart card readers for some or all of El Dorado Transit vehicles.

RIDERSHIP AND SERVICE LEVELS

Historical Ridership and Service Levels

Systemwide ridership over fiscal years (FY) 1998/99 through 2012/13, both in total and by major service category, is presented in Table 19. As presented, total systemwide ridership over the past 15 years has increased 61.8 percent, or 3.3 percent annual average growth. The El Dorado Transit target for annual ridership increase is 3.0 percent. The most rapid growth

occurred between FY 2005-06 and FY 2008-09, with a significant decline in FY 2009-10 and a small decline in FY 2010-11. The decline in FY 2009-10 was due to a large loss in revenues due to poor economic conditions. As a cost saving measure, El Dorado Transit reduced service hours by 14 percent in FY 2009-10. Despite the cuts in service, ridership has begun to recover, as shown by increases in FY 2011-12, and only a small decline in FY 2012-13.

Examination of ridership data by service (also in Table 19) reveals that the increase in local route ridership (70,660 annual one-way passenger-trips) accounts for 45 percent of the systemwide ridership increase over the fifteen-year period, while commuter ridership has also grown steadily, (an increase of 50,535 or 32 percent of the growth in the past fifteen years). While overall ridership increased steadily from FY 2003-04 to FY 2008-09 (particularly local routes, commuter service, and special event ridership), some ridership declined in this period, including dial-a-ride and contracted services.

Figure 13 graphically presents 10-year ridership trends. A review of this data indicates the following:

- The local routes, including Placerville Routes, Pollock Pines, Cameron Park and Diamond Springs (with several variations on route alignments over the years) have seen a 59 percent increase in ridership over the last ten years or an average annual growth of 4.8 percent. A peak was seen in FY 2008-09, after which ridership declined somewhat before stabilizing.

TABLE 18: El Dorado Transit Fare Structure

	General Public		*Elderly/Disabled/Medicare*		*Student (K-12)*	
Service	**One-Way**	**Monthly**	**One-Way**	**Monthly**	**One-Way**	**Monthly**
Local Routes						
Pollock Pines, Placerville Routes Diamond Springs, Cameron Park,	$1.50	$60.00	$0.75	$30.00	$0.75	$30.00
Grizzly Flat Route	$10.00	--	$5.00	--	$5.00	--
ADA Off-route Deviation	--	--	$0.50	--	--	--
Complementary Paratransit Service	--	--	$2.00	--	--	--
Dial-A-Ride [1]						
Zone A	$4.00	N/A	$2.00	N/A	N/A	N/A
Zone B-E	$5.00	N/A	$3.00	N/A	N/A	N/A
Zone F-L	N/A	N/A	$5.00	N/A	N/A	N/A
Commuter Routes [2]						
Sacramento Commuter Routes	$5.00	$180.00	N/A	N/A	N/A	N/A
Combination Pass (RT and EDT)	N/A	$210.00	N/A	N/A	N/A	N/A
Iron Point [3] and Inter-County Service [4]						
Iron Point Connector or Inter-County Service	$2.50	$90.00	$1.25	$90.00	$1.25	$90.00
Combination Pass (IPC and RT)	N/A	$130.00	N/A	$130.00	N/A	$130.00
SAC-MED Route	$10.00	N/A	$10.00	N/A	$10.00	N/A

Note 1: Additional cost of $0.50 per zone boundary crossed for Elderly/Disabled and student fares and additional cost of $1.00 per zone boundary crossed for General public.
Note 2: Students with a "Student Access Card" from the Los Rios Community College District or students of California State University Sacramento receive a discounted fare of $4.00; all other students are charged the full $5.00 one-way fare.
Note 3: Folsom Lake College and California State University Sacramento students with ID receive a discounted fare of $1.50.
Note 4: Fares for passengers riding from one Park-and-Ride in the County to another.

Source: El Dorado County Transit Authority. Updated 10-30-13

TABLE 19: El Dorado Transit Historical Ridership

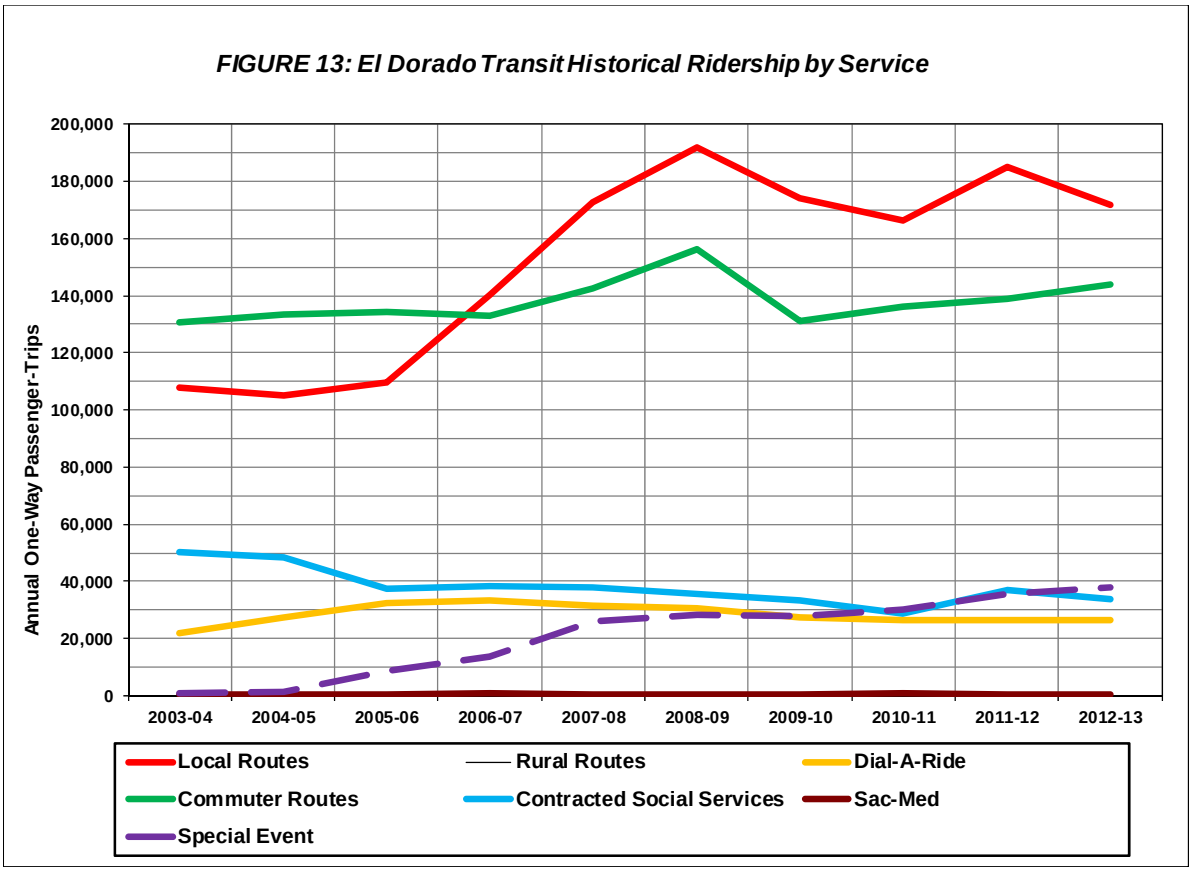
Fiscal Year	Local Community Routes	Rural Routes[1]	Dial-A-Ride	Commuter Routes	Contracted Social Services	Sac - Med	Special Event [2]	Total Annual One-Way Passenger-Trips	Total % Change
1998-99	100,916	885	13,117	93,381	38,631	0	9,319	256,249	0.4%
1999-00	112,823	638	16,490	113,422	39,693	0	12,331	295,397	15.3%
2000-01	104,461	610	16,930	123,808	40,160	0	8,977	294,946	-0.2%
2001-02	99,553	723	16,295	129,294	43,650	0	1,140	290,655	-1.5%
2002-03	100,514	601	17,616	132,504	45,549	291	765	297,840	2.5%
2003-04	107,789	451	21,955	130,903	50,118	593	942	312,751	5.0%
2004-05	105,286	397	27,227	133,529	48,510	509	1,313	316,771	1.3%
2005-06	109,807	669	32,302	134,367	37,598	677	8,933	324,353	2.4%
2006-07	140,333	743	33,230	133,081	38,628	757	13,797	360,569	11.2%
2007-08	172,491	648	31,550	142,450	37,785	693	26,088	411,705	14.2%
2008-09	191,921	463	30,683	156,379	35,879	657	28,533	444,515	8.0%
2009-10	173,901	328	27,650	131,078	33,517	456	27,914	394,844	-11.2%
2010-11	166,433	184	26,720	136,208	28,723	799	30,296	389,363	-1.4%
2011-12	184,881	116	26,523	138,905	36,961	688	35,603	423,677	8.8%
2012-13	171,576	243	26,475	143,916	33,804	590	38,036	414,640	-2.1%
Total Growth	70,660	-642	13,358	50,535	-4,827	590	28,717	158,391	61.8%
Average Annual Growth	4,711	-43	891	3,369	-322	39	1,914	10,559	3.3%

Note 1: Rural Routes = Grizzly Flat; El Dorado Hills and South County

Note 2: Special Event = Holly Jolly Trolley, Fair Shuttle and Apple Hill Shuttle. Main Street Shuttle is served on the Placerville Route

Source: El dorado Transit Administrative Operations Reports Fiscal Years 1996-97 through 2006-07, and Route Match / Access summaries 2007-08 to 2012-13.

FIGURE 13: El Dorado Transit Historical Ridership by Service



- The rural routes consist of the Grizzly Flats Route, as well as the South County Route (from 2005 to 2008, then discontinued due to low ridership). Ridership on Grizzly Flats has declined in part due to more stringent rules regarding when service will be provided. In FY 2011-12, only 116 passenger trips were carried on this route. Rural ridership, which has carried less than 500 passengers in the past five years, and less than 1,000 in the past decade, has decreased by 46.1 percent.

- Dial-A-Ride ridership has increased by 21 percent over the ten-year period, which is a slower increase than systemwide ridership. All of this growth occurred prior to FY 2006-07; since that year, ridership has declined by 20 percent. In part, this is due to efforts by El Dorado Transit to train able-bodied passengers to use the fixed-route services.

- The commuter ridership has grown by 10 percent over the past ten years, an average of 1.0 percent per year. Over the past decade, there has only been one instance of year-to-year decline (in FY 2009-10).

- Contracted services have declined over the past decade by 33 percent (an average decrease of 3.9 percent per year), reflecting changes in program participation. The highest ridership was ten years ago when El Dorado Transit carried 50,118 one-way passenger trips.

Table 20 presents a review of trends in vehicle service hours, which declined by 14 percent over the past six years. Also shown in Table 20 are the vehicle service miles, which decreased by 11 percent over the period. Much of this decrease is attributed to service cuts in 2009, when El Dorado Transit reduced revenue hours by 14 percent.

TABLE 20: El Dorado Transit Historical Hours and Miles of Service

Fiscal Year	Total Annual Service Hours		Total Annual Service Miles	% Change
2008-09	50,720		1,138,424	
2009-10	43,851	-13.5%	996,189	-12.5%
2010-11	44,441	1.3%	1,023,239	2.7%
2011-12	44,412	-0.1%	1,027,860	0.5%
2012-13	44,967	1.2%	1,009,071	-1.8%
Total Growth	-5,753	-11.3%	-129,353	-11.4%

Source: El Dorado Transit Administrative Operations Reports Fiscal Years 1996-97 through 2006-07, and Route Match / Access summaries 2007-08 to 2012-13.

Current Ridership

Total annual systemwide ridership for FY 2012-13 on all El Dorado Transit services was 414,640 one-way passenger-trips, as shown in Table 21. The local routes accounted for 41.4 percent of the total ridership, as shown in Figure 14, with Pollock Pines and Placerville Shuttle each accounting for just over 13 percent. Commuter service accounted for 34.7 percent of the ridership (including the Iron Point Shuttle and Reverse Commute). Special transportation (the Apple Hill® Shuttle and Fair Shuttle) accounted for 9.2 percent of the total annual ridership.

Table 21 and Figure 15 show monthly ridership data by route/service for FY 2012-13. As shown, total systemwide ridership is highest in the month of October (not even counting the seasonal Apple Hill® Shuttle). April and May also represent high transit activity months. Ridership is the lowest in the months of June (excluding the County Fair Shuttle ridership) and July, and November and December.

Detailed Ridership Review

To further provide a good understanding of current El Dorado Transit ridership patterns, a detailed review was conducted of one full week of driver log and dispatch log data, for a typical week (May 4 to 10, 2013). This data was then adjusted to reflect average conditions over FY 2012-13, based on the ratio of the average ridership to that seen in the review week.

TABLE 21: Total El Dorado Transit Ridership by Month, Fiscal Year 2012-13

	Local Community Routes								Commuter Routes									
Month	Cameron Park	Pollock Pines	Placer-ville	Main St. Shuttle	Diamond Springs	Saturday Express	*Subtotal Local Routes*	Dial- A-Ride [2]	Commute	Reverse Commute	Iron Point	*Subtotal Commuter Routes*	Contract MORE	SDC	Grizzly Flat	SAC MED [2]	Special Event[(1)]	**Total**
July 2012	1,295	3,998	4,710	6	1,142	514	*11,665*	2,560	10,810	92	815	*11,717*	2,121	564	0	29	0	**28,092**
August	2,027	5,151	5,380	72	2,728	505	*15,863*	2,479	12,437	110	984	*13,531*	2,531	642	33	63	0	**34,500**
September	1,990	4,709	4,330	189	3,014	642	*14,874*	2,162	10,161	101	819	*11,081*	2,014	501	10	70	0	**30,211**
October	2,360	5,508	4,934	132	3,531	686	*17,151*	2,522	12,256	95	973	*13,324*	2,308	586	8	44	26,011	**61,368**
November	1,778	4,420	4,042	82	2,715	525	*13,562*	1,929	10,189	147	797	*11,133*	1,888	511	0	44	0	**28,556**
December	1,706	4,058	4,024	81	2,389	751	*13,009*	1,841	9,431	128	598	*10,157*	1,803	522	27	38	0	**26,875**
January 2013	1,639	4,662	4,795	162	2,444	458	*14,160*	2,099	11,797	93	724	*12,614*	2,378	632	33	41	0	**31,325**
February	1,748	4,830	4,251	21	3,059	570	*14,479*	2,005	10,568	73	803	*11,444*	2,152	484	26	60	0	**30,166**
March	1,702	4,787	4,742	221	2,819	688	*14,959*	2,271	11,372	81	852	*12,305*	2,362	560	7	62	0	**31,966**
April	1,982	4,883	5,008	181	3,263	549	*15,866*	2,151	11,660	83	907	*12,650*	2,524	578	27	34	0	**33,252**
May	1,891	4,878	4,829	152	3,098	563	*15,411*	2,303	11,762	108	855	*12,725*	2,577	640	38	38	0	**33,092**
June	992	3,752	3,740	167	1,278	648	*10,577*	2,153	10,507	87	641	*11,235*	2,294	632	34	67	12,025	**38,385**
Total	**21,110**	**55,636**	**54,785**	**1,466**	**31,480**	**7,099**	***171,576***	**26,475**	**132,950**	**1,198**	**9,768**	***143,916***	**26,952**	**6,852**	**243**	**590**	**38,036**	**414,640**
Monthly Average	1,759	4,636	4,565	122	2,623	592	*14,298*	2,206	11,079	100	814	*11,993*	2,246	571	20	49	3,170	34,553
% of Systemwide Total	5.1%	13.4%	13.2%	0.4%	7.6%	1.7%	*41.4%*	6.4%	32.1%	0.3%	2.4%	*34.7%*	6.5%	1.7%	0.1%	0.1%	9.2%	

Note 1: Special Event = Apple Hill Shuttle and Fair Shuttle
Note 2: Includes free-fare Personal Care Attendants (PCAs)

Source: El Dorado Transit Administrative Monthly Productivity Reports and RouteMatch Monthly Reports, July-December 2012 and January-June, 2013.

FIGURE 14: El Dorado Transit Proportion of Ridership by Type of Service

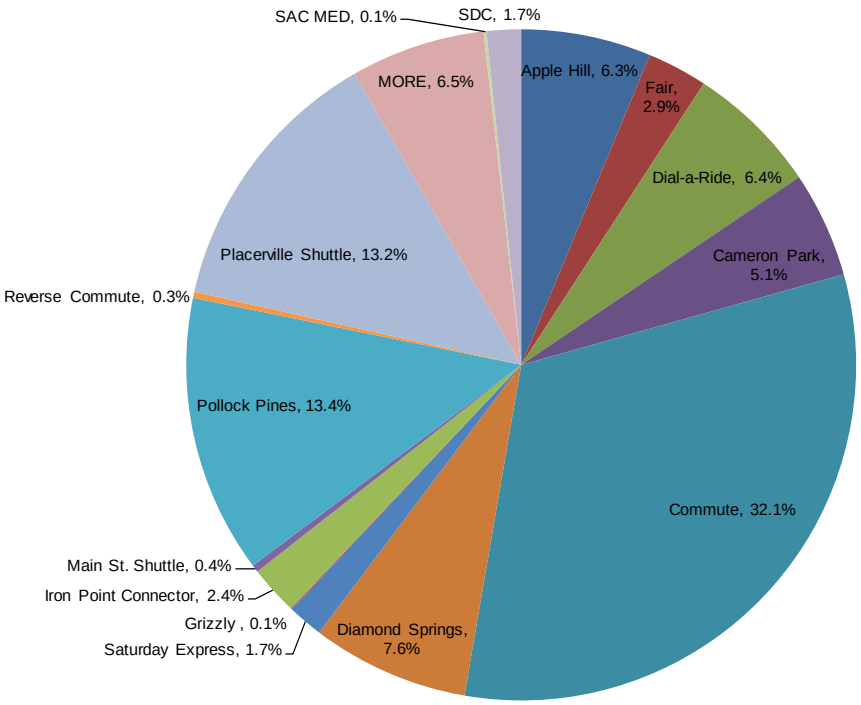


FIGURE 15: El Dorado Transit Ridership by Month by Service

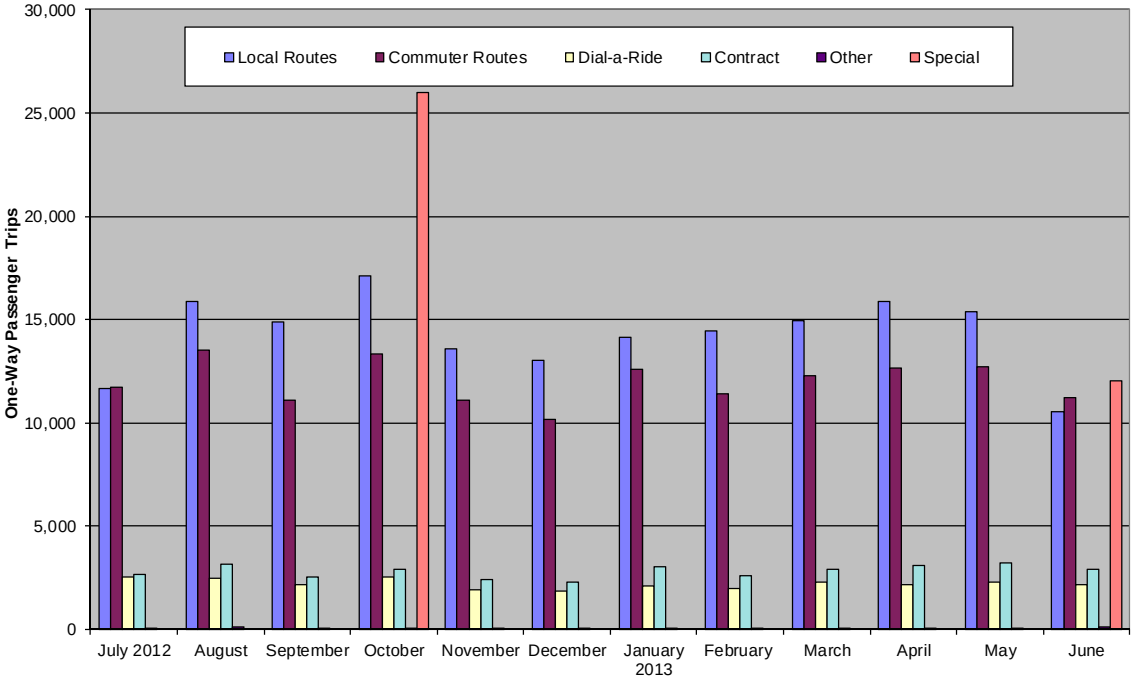


TABLE 22: El Dorado Transit Commuter Service Ridership by Run

Route	Run	Run Start Time	Monday 5/6/2013	Tuesday 5/7/2013	Wednesday 5/8/2013	Thursday 5/9/2013	Friday 5/10/2013	Week Average	Annual Average (1)
AM									
Commuter	11	5:10 AM	30	26	21	20	18	23	22.2
Commuter	2	5:20 AM	16	22	20	21	17	19.2	18.5
Commuter	1	5:25 AM	19	25	29	27	19	23.8	22.9
Commuter	4	5:25 AM	12	20	13	21	10	15.2	14.7
Commuter	3	5:40 AM	17	17	22	18	12	17.2	16.6
Commuter	5	5:50 AM	20	28	29	29	14	24	23.1
Commuter	6	5:50 AM	26	25	26	20	19	23.2	22.4
Commuter	8	6:10 AM	16	29	17	24	14	20	19.3
Commuter	10	6:35 AM	50	48	54	56	47	51	49.2
Commuter	12	7:30 AM	39	41	45	36	23	36.8	35.5
Commuter	7	8:00 AM	29	24	25	36	22	27.2	26.2
Reverse	6	7:27 AM	2	2	0	0	0	0.8	0.7
Reverse	7	9:22 AM	0	1	1	2	3	1.4	1.3
PM									
Commuter	12	2:40 PM	19	20	21	19	16	19	18.3
Commuter	7	3:10 PM	27	28	27	25	27	26.8	25.8
Commuter	9	3:30 PM	29	25	23	25	22	24.8	23.9
Commuter	8	3:35 PM	14	26	23	24	18	21	20.2
Commuter	5	4:18 PM	45	50	45	42	32	42.8	41.3
Commuter	4	4:19 PM	24	32	32	23	16	25.4	24.5
Commuter	2	4:25 PM	23	29	30	31	22	27	26.0
Commuter	3	4:27 PM	23	24	17	17	13	18.8	18.1
Commuter	11	4:45 PM	23	29	29	43	16	28	27.0
Commuter	1	5:10 PM	27	30	33	32	3	25	24.1
Commuter	6	6:00 PM	17	12	14	16	26	17	16.4
Reverse	7	2:00 PM	4	8	0	0	1	2.6	2.3
Reverse	6	4:40 PM	1	0	0	0	2	0.6	0.5
Subtotal: AM			276	308	302	310	218	282.8	272.4
Subtotal: PM			276	313	294	297	214	278.8	268.5
TOTAL			**552**	**621**	**596**	**607**	**432**	**561.6**	**540.9**

Source: Driver logs for May 6, 2013 to May 10, 2013 Note 1: Adjusted to FY 2012-13 daily average total ridership

Commuter Services

Table 22 presents ridership by run and day of week for the Sacramento Commuter services (including the reverse commute runs). A review of this data indicates the following:

- Ridership is highest on Tuesday, Wednesday and Thursday. In comparison, Monday ridership is roughly 10 percent lower, and Friday ridership is roughly 28 percent lower.

- Overall, AM and PM ridership is closely matched, indicating that the large majority of passengers use the service in both directions (rather than carpooling in one direction only).

- The most popular runs in the AM are Route 10 (the 6:35 AM departure from Central Park-and-Ride, arriving downtown starting at 7:39 AM), with an average of 49.2 passengers per run, followed by Route 12 (the 7:30 AM departure from El Dorado Hills, arriving downtown starting at 8:02 AM) with an average of 35.5 passengers per run. In comparison, the

earliest runs (such as Routes 2, 3 and 4, arriving downtown between 6:30 AM and 6:45 AM) have relatively low ridership between 14.7 and 18.5 passengers per run.

- In the PM, Route 5 (with a 4:18 PM first pick-up) carries the highest average ridership of 41.3 passengers per day, followed by Route 11 (4:45 departure) with 27.0. The lowest ridership is the last run of the evening (Route 6, departing at 6:00 PM) with 16.4 passengers per day.

- Roughly half of the Reverse Commute runs offered on the schedule carry passengers, averaging 1.4 passengers per scheduled run.

Fixed and Deviated Fixed Route Services

Average ridership by day of week on the fixed and deviated fixed routes is shown in Table 23. In addition, Table 24 and Figures 16 (weekday) and 17 (Saturday) present the average ridership by run. This data indicates the following patterns:

TABLE 23: El Dorado Transit Fixed and Deviated Fixed Route Ridership by Day of Week

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Cameron Park	71	72	87	86	88	--	406
Diamond Spgs	126	112	128	124	115	--	605
Iron Point	36	30	45	36	42	--	188
Pollock East	240	183	214	206	226	--	1,070
Placerville	211	206	207	198	231	--	1,054
Saturday Express	--	--	--	--	--	149	149
TOTAL	684	604	682	650	702	149	3,472

Source: Driver logs for May 6, 2013 to May 10, 2013, adjusted to FY 2012-13 average weekly total ridership

- Over the weekdays, ridership is highest on Friday (702) and lowest on Tuesday (604). Reflecting the fact that Saturday service is limited to the Saturday Express (two buses operating 7 hours per day each), Saturday ridership is 22 percent of average weekday ridership.

- Overall weekday ridership peaks in the 8:00 AM to 9:00 AM hour (81 passengers), drops somewhat in the mid-day period, and then reaches the daily peak of 99 passengers per hour in the 2:00 PM to 3:00 PM hour.

- Ridership on the Saturday Express is relatively strong in the 9:00 AM, 11:00 AM and 12:00 PM hours, dropping in the afternoon.

- Both the Pollock Pines and the Placerville Routes show a strong pattern of westbound travel before 10:00 AM, and eastbound travel after 1:00 PM.

TABLE 24: El Dorado Transit Local Route Ridership by Hour

Hour of Run Start Time	Weekday								Saturday		
	Cameron Park	Diamond Springs	Iron Point	Pollock Pines EB	Pollock Pines WB	Placerville EB	Placerville WB	Total Weekday	Saturday Express EB	Saturday Express WB	Total Saturday
6:00 AM	16.2	--	9.8	--	20.2	--	--	46.2	--	--	--
7:00 AM	--	12.1	--	--	11.9	1.4	11.7	37.1	--	--	--
8:00 AM	16.2	16.5	10.4	4.2	12.3	9.1	12.3	80.8	--	--	--
9:00 AM	--	10.9	--	4.2	8.7	8.5	12.3	44.5	5.0	25.0	30.0
10:00 AM	--	7.2	--	7.1	8.9	11.1	9.5	43.7	4.0	8.0	12.0
11:00 AM	17.7	7.9	--	11.6	11.6	17.3	10.7	76.9	14.0	17.0	31.0
12:00 PM	--	10.9	--	12.5	8.5	8.0	12.3	52.2	--	--	--
1:00 PM	--	26.2	--	16.2	13.9	16.1	9.1	81.5	17.0	14.0	31.0
2:00 PM	26.8	19.2	--	19.3	10.4	15.7	7.2	98.6	11.0	8.0	19.0
3:00 PM	--	9.0	--	17.5	10.0	16.9	7.2	60.6	8.0	2.0	10.0
4:00 PM	--	5.8	12.4	15.4	--	13.9	4.4	51.9	10.0	6.0	16.0
5:00 PM	8.3	1.2	--	--	--	3.0	3.4	15.9	--	--	--
6:00 PM	--	--	6.7	--	--	--	--	6.7	--	--	--

Source: Driver logs for May 6, 2013 to May 10, 2013, adjusted to FY 2012-13 average daily total ridership

FIGURE 16: El Dorado Transit Fixed and Deviated Fixed Route Weekday Ridership by Hour

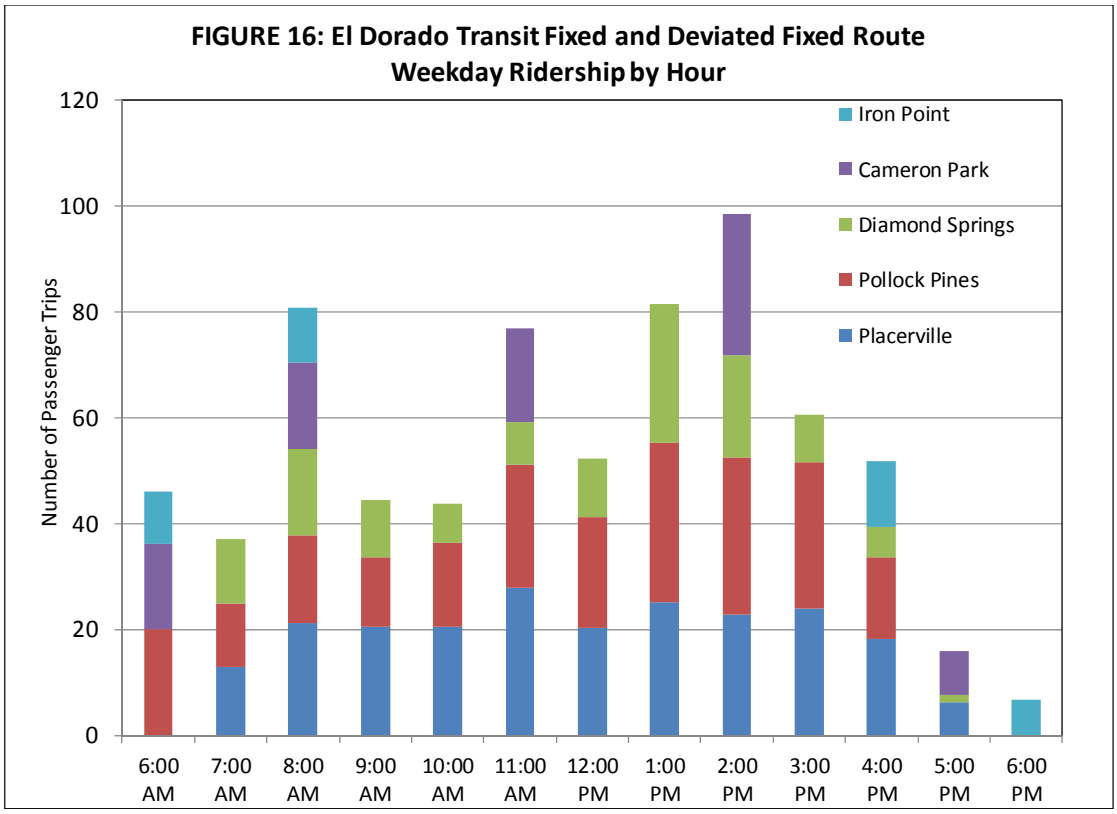
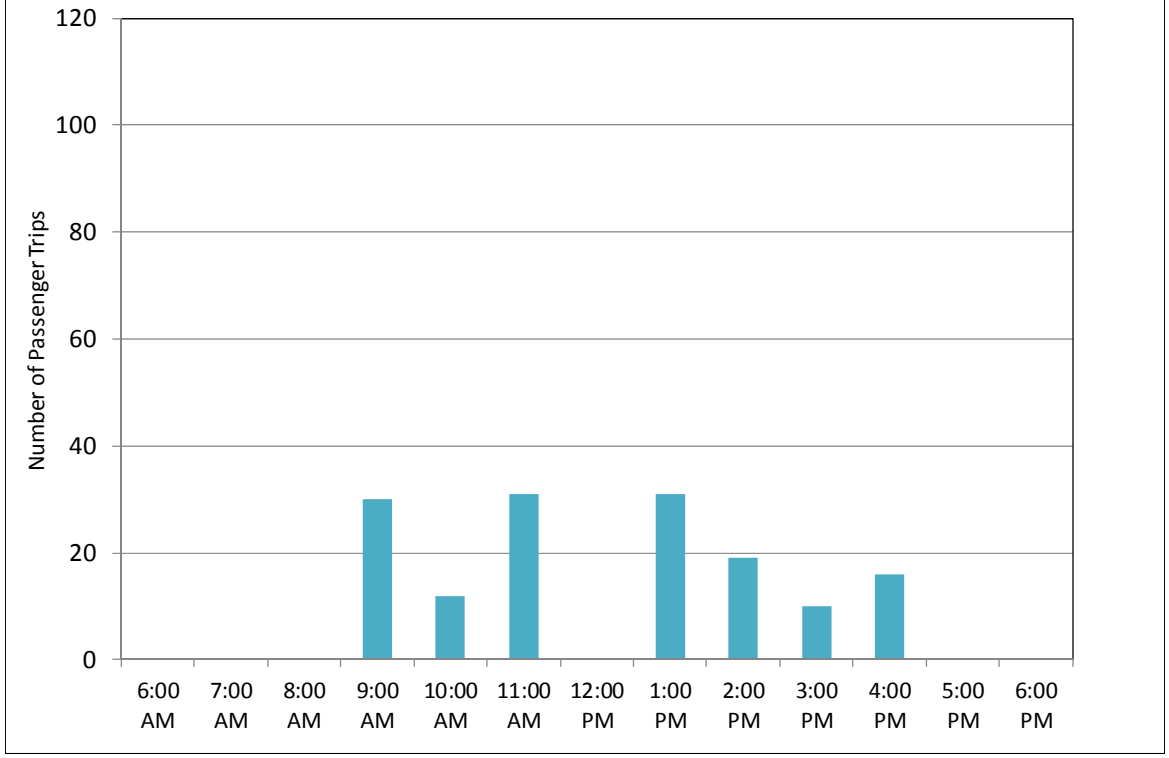


FIGURE 17: El Dorado Transit Saturday Express Ridership by Hour



Paratransit Services

Paratransit services include "program" trips, which are transit trips related to a service program such as Mother Lode Rehabilitation Enterprises (MORE) or Senior Day Care (SDC). Non-program trips are dial-a-ride trips not associated with a program. The ridership data by run and day of week is presented in Table 25, while Table 26 presents the data by time of day. The data indicates the following:

- Weekday ridership is relatively consistent, with Wednesday ridership slightly higher than the other weekdays.
- The non-program runs consist of approximately five runs each weekday that largely accommodate Dial-A-Ride and ADA passengers. These non-program runs carry 36 percent of the total paratransit ridership. Saturday non-program ridership is 52 percent of the weekday average, while the Sunday ridership is 35 percent of the weekday average.
- Overall paratransit ridership is highest in the 3:00 PM to 4:00 PM hour, when a total of 69.0 passengers are served, followed by the 7:00 to 8:00 AM hour when 51.5 passengers are served on average. The program runs are highly concentrated in the 7:00 AM to 9:00 AM and the 3:00 PM to 5:00 PM hours, when 92 percent of their ridership is served. In comparison, the non-program runs have relatively consistent ridership from 8:00 AM through 4:00 PM, serving between 7.5 and 10.5 passengers in each of these hours.

TABLE 25: El Dorado Transit Paratransit Service by Day of Week

Run	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
Program Red	22.3	18.7	18.7	18.7	21.4	--	--	99.8
Program Blue	16.9	16.0	16.9	18.7	16.9	--	--	85.5
Program Green	11.6	12.5	11.6	11.6	14.3	--	--	61.5
Program Yellow	17.8	13.4	22.3	15.1	22.3	--	--	90.9
Program Black	34.7	33.9	34.7	26.7	33.0	--	--	163.1
Program White	22.3	23.2	24.1	19.6	13.4	--	--	102.5
Program Orange	25.8	27.6	26.7	27.6	27.6	--	--	135.4
Non-Program	59.7	70.4	82.0	80.2	65.9	37.4	24.9	420.6
Total	211.2	215.6	237.0	218.3	214.7	37.4	24.9	1159.2

Source: Driver logs for May 4, 2013 to May 10, 2013, adjusted to FY 2012-13 average weekly total ridership
Excludes Grizzly Flat, Sac-Med

The data was also reviewed to identify key paratransit trip generators. Over all paratransit runs, MORE generated 56 percent of all passenger-trips (either as a pick-up location or a drop-off location). Other key generates were Senior Day Care (11 percent of all passenger-trips), the Dialysis Center in Cameron Park (3 percent) and Sierra Nevada House (2 percent).

The paratransit ridership data was also analyzed to identify passenger-trip origin/destination pairs. This analysis was conducted separately for program (Alta) runs and non-program runs. The average daily origin/destination ridership data for the program trips is shown in Table 27. As indicated, fully 98 percent of all passenger-trips have one or both of the trip-ends within Placerville (reflecting that the program sites are located in Placerville). El Dorado Hills was the location of 19 percent of the pick-ups or drop-offs, followed by 17 percent in Cameron Park, 10

TABLE 26: El Dorado Transit Paratransit Average Ridership by Hour of Day

Route	Passengers Picked Up in Hour Beginning										Total	
	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	#	%
Program Red	5.5	6.0	1.0	--	--	--	--	--	6.5	3.0	1.5	23.5	9%
Program Blue	6.0	2.0	--	--	--	1.0	2.0	2.0	5.0	2.5	--	20.5	8%
Program Green	4.0	2.5	--	--	--	--	--	--	5.0	1.5	--	13.0	5%
Program Yellow	4.5	5.0	--	--	--	--	--	--	8.0	2.0	--	19.5	8%
Program Black	12.5	2.0	5.0	--	--	--	--	--	11.5	7.0	--	38.0	15%
Program White	3.5	8.0	--	--	--	--	--	--	7.0	5.0	--	23.5	9%
Program Orange	13.0	2.0	--	--	--	--	--	--	16.0	--	--	31.0	12%
Non-Program	2.5	10.5	8.5	8.5	7.5	8.5	8.5	9.5	10.0	3.5	2.0	79.5	32%
TOTAL	51.5	38.0	14.5	8.5	7.5	9.5	10.5	11.5	69.0	24.5	3.5	248.5	100%
Total % by Hour	21%	15%	6%	3%	3%	4%	4%	5%	28%	10%	1%	100%	
Alta % by Hour	29%	16%	4%	0%	0%	1%	1%	1%	35%	12%	1%	100%	
Other % by Hour	3%	13%	11%	11%	9%	11%	11%	12%	13%	4%	3%	100%	

Source: Driver logs for May 6, 2013 and May 9, 2013. Excludes Grizzly Flat and Sac-Med ridership, which are not daily.

TABLE 27: El Dorado Transit Average Daily Program Paratransit Trip Origin/Destination Ridership Data

		Destination Area													
		Camino	Coloma	Cameron Park	Diamond Springs	El Dorado	El Dorado Hills	Garden Valley	Kelsey	Placerville	Pollock Pines	Rancho Cordova	Rescue	Shingle Springs	Total
Origin Area	Camino	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Coloma	0	0	0	0	0	0	0	0	6	0	0	0	0	6
	Cameron Park	0	0	0	0	0	0	0	0	15	0	0.5	0	0	15.5
	Diamond Springs	0	0	0	0	0	0	0	0	4.5	0	0	0	0	4.5
	El Dorado	0	0	0	0	0	0	0	0	7	0	0	0	0	7
	El Dorado Hills	0	0	0.5	0	0	0	0	0	17.5	0	0	0	0	18
	Garden Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Kelsey	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Placerville	0	0	10.5	5	10	13	0	0	54.5	0	4	1.5	4.5	103
	Pollock Pines	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0.5
	Rancho Cordova	0	0	1	1	0	0	0	0	3	0	0	0	0	5
	Rescue	0	0	0	0	0	0	0	0	2	0	0	0	0	2
	Shingle Springs	0	0	0	0	0	0	0	0	4.5	0	0	0	0	4.5
	Total	0	0	12	6	10	13	0	0	114.5	0	4.5	1.5	4.5	166
	Total Trips with 1 or Both Ends in Area	0	6	27.5	10.5	17	31	0	0	163	0.5	9.5	3.5	9	
	Percent Total Trips	0%	4%	17%	6%	10%	19%	0%	0%	98%	0%	6%	2%	5%	

Source: Driver logs for May 6, 2013 and May 9, 2013

percent in El Dorado, and lower percentages in Coloma, Diamond Springs, Rescue and Shingle Springs. In addition, 6 percent of these passenger-trips are to/from a special needs worksite in Rancho Cordova.

The origin/destination data for the non-program paratransit services is presented in Table 28. Of the total, 85 percent of passenger-trips had one or both trip-ends in the Placerville area (specifically, 39 percent of trips were wholly within Placerville while 46 percent had either the pick-up or the drop-off location in Placerville). Cameron Park was the second-busiest area for non-program paratransit service, with 25 percent of all trips serving at least one trip-end in the area, followed by Diamond Springs with 14 percent and Pollock Pines with 4 percent. No other area generated more than 3 percent of these trips. This pattern reflects the fact that ADA paratransit service is limited to the Placerville area, and also reflects the increasing fares for Dial-A-Ride services in the zones furthest from the Placerville/Diamond Springs area.

ADA Route Deviations

El Dorado Transit offers paratransit services and route deviation service as a means to meet the needs of individuals with disabilities. Route deviations are offered on the local routes, except the Placerville Routes, which have complementary paratransit service. To request a route deviation, individuals call up to 24 hours in advance and pay an additional $0.50 fare. As with any flexible service, there is concern that the overall schedule can be impacted by such deviations. LSC evaluated trends in ADA route deviations by counting the number of deviations over a two week period, as presented in Table 29. As indicated, over the two week period, there were a total of 38 deviations, or an average of 3.2 trips per day. This low number of deviations does not significantly affect the on-time performance of the local routes.

Boarding and Alighting Activity on Local Community Routes

Boarding and alighting data is useful in determining which currently served locations generate the most activity and therefore need to be considered in future routing options. In May 2011, LSC Transportation Consultants, Inc. conducted boarding and alighting counts on behalf of El Dorado Transit. The most recent ridership (May 2013) was applied to this boarding and alighting data to estimate current trends in boardings and alightings. Table 30 shows boarding and alighting locations by community. As indicated, just over 40 percent of the ridership originated in Placerville, while 20 percent originated in Diamond Springs and 15 percent in Pollock Pines. It should be noted that the transfer center at Missouri Flat Road is located in Diamond Springs, so that stop has an inflated number of boardings and alightings because of the high number passing through to transfer. Cameron Park is also a popular transit location with 10 percent of the ridership originating there.

Table 31 shows which local community route stops had the highest activity based on the boarding and alighting counts. As indicated, the Missouri Flat Transfer Center had an estimated 386 combined boardings and alightings on an average day. The next busiest stop was the Placerville City Hall, with an estimated average of 78 boardings and alightings per day. Other stops with high activity include the Child Development Center at Folsom Lake College (El Dorado Center), Raley's (Placerville), Folsom Lake College (El Dorado Center) and the Safeway in Pollock Pines.

It should be noted that there have been changes since 2011 which affect transit patterns. Most specifically, a number of El Dorado County services (including Child Support, Probation and Mental Health) have relocated from Placerville to the Diamond Springs or Shingle Springs. A survey was conducted to identify some of the new trip patterns, as presented in Appendix B.

TABLE 28: El Dorado Transit Average Daily Non-Program Run Paratransit Trip Origin/Destination Ridership Data

		Destination Area													
		Camino	Coloma	Cameron Park	Diamond Springs	El Dorado	El Dorado Hills	Garden Valley	Kelsey	Placerville	Pollock Pines	Rancho Cordova	Rescue	Shingle Springs	Total
Origin Area	Camino	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0.5
	Coloma	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cameron Park	0	0	1	1.5	0.5	0.5	0	0	6.5	0	0	0	0.5	10.5
	Diamond Springs	0	0	1	0	0	0	0	0	3.5	0	0	0.5	0.5	5.5
	El Dorado	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	El Dorado Hills	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0.5
	Garden Valley	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0.5
	Kelsey	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0.5
	Placerville	0.5	0	7	3.5	0	0.5	0.5	1	31	1	0	0.5	4	49.5
	Pollock Pines	0	0	0	0	0	0	0	0	1.5	1	0	0	0	2.5
	Rancho Cordova	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rescue	0	0	0	0.5	0	0	0	0	0.5	0	0	0	0	1
	Shingle Springs	0	0	0.5	0	0	0	0	0	3.5	0	0	0	2.5	6.5
	Total	0.5	0	10.5	5.5	0.5	1	0.5	1	48.5	2	0	1	7.5	78.5
	Total Trips with 1 or Both Ends in Area	1	0	20	11	1.5	1.5	1	1.5	67	3.5	0	2	11.5	
	Percent of Total Trips	1%	0%	25%	14%	2%	2%	1%	2%	85%	4%	0%	3%	15%	

Source: Driver logs for May 6, 2013 and May 9, 2013

TABLE 29: El Dorado Transit ADA Off-Route Deviation Tracking

Two Week Period -- 7/22/13 to 8/2/13

Route	Location	Date	Time
Cameron Park	Choices	7/14/2013	11:39
Cameron Park	Choices	7/23/2013	12:00
Cameron Park	Choices	7/25/2013	8:54
Cameron Park	Dialysis	7/30/2013	8:15
Cameron Park	Los Santos	8/2/2013	12:15
Diamond Springs	Clear Court	7/29/2013	10:00
Diamond Springs	Clear Court	7/29/2013	12:10
Diamond Springs	Clear Court	7/30/2013	10:06
Diamond Springs	Clear Court	7/31/2013	4:10
Diamond Springs	Clear Court	8/1/2013	2:28
Diamond Springs	El Dorado and Pleasant Valley	7/25/2013	12:17
Diamond Springs	Eskaton	7/26/2013	9:30
Diamond Springs	Patterson Court	7/25/2013	2:22
Diamond Springs	Patterson Court	8/1/2013	1:27
Diamond Springs	Ryan and Elizabeth Lane	7/29/2013	4:19
Diamond Springs	Vision Center	7/31/2013	8:20
Diamond Springs	Walmart	7/14/2013	2:01
Diamond Springs	Walmart	7/25/2013	11:30
Diamond Springs	Walmart	7/26/2013	9:55
Diamond Springs	Walmart	7/26/2013	12:33
Diamond Springs	Walmart	8/1/2013	11:30
Diamond Springs	Walmart	8/2/2013	11:26
Placerville	Forebay	7/24/2013	8:30
Placerville	Sierra Pines	7/25/2013	2:34
Placerville	Walmart	7/24/2013	7:47
Placerville	Walmart	7/26/2013	11:56
Placerville	Walmart	7/29/2013	7:45
Placerville	Walmart	7/29/2013	10:00
Placerville	Walmart	7/31/2013	12:02
Placerville	Walmart	8/1/2013	7:47
Placerville	Walmart	8/1/2013	10:00
Placerville	Walmart	8/1/2013	12:00
Placerville	Walmart	8/2/2013	7:49
Placerville	Walmart	7/22/2013	10:54
Placerville	Walmart	7/24/2013	10:56
Placerville	Walmart	7/29/2013	1:01
Placerville	Walmart	7/29/2013	11:02
Placerville	Walmart	8/2/2013	11:02

Source -- "ADA Off-Route Deviation Tracking" log sheets.

TABLE 30: El Dorado Transit Local Community Route Boarding and Alighting Locations

Boarding Locations	*Passenger Count from May, 2011*		*Passengers at Current Ridership Levels*	
	#	%	#	%
Cameron Park	24	10.9%	21	10.9%
Camino	13	5.9%	11	5.9%
Diamond Springs	45	20.5%	40	20.5%
El Dorado	2	0.9%	2	0.9%
Folsom	8	3.6%	7	3.6%
Grizzly Flat	2	0.9%	2	0.9%
Placerville	89	40.5%	79	40.5%
Pollock Pines	34	15.5%	30	15.5%
Shingle Springs	3	1.4%	3	1.4%
Total Boardings	**220**		**195**	

Source: Survey data from May 2011, extrapolated to May 2013 ridership. LSC Transportation Consultants, Inc.

TABLE 31: El Dorado Transit Local Community Route Stops With Highest Passenger Activity

Stop	Routes Serving Stop (■) Placerville East	Placerville West	Pollock Pines E.	Pollock Pines W.	Cameron Park	Diamond Springs	Total # On or Off
Missouri Flat Transfer Center	■	■	■	■	■	■	386
Old Placerville City Hall	■	■					78
Child Development Center					■		53
Raley's (Placerville Dr.)	■	■	■	■			43
Folsom Lake College					■		42
Safeway Plaza Pollock Pines			■	■			33
Cameron Park Dr. & Green Valley Rd.					■		32
Pleasant Valley Rd & Church St.						■	30
Safeway (Cameron Park)					■		29
Placerville Station	■	■					27
Placerville Library	■	■					23
Pearl Place & Courtside Dr.						■	20
Big 5 (Placerville Dr.)	■		■				19
Coloma Court	■	■	■	■			18
Human Services							16
Placerville Post Office	■	■					15
Tunnel St. Apartments	■	■					14
Upper Room	■						14
Independence High School						■	14

Source: LSC Transportation Consultants, Inc. Onboard surveys conducted May 2011, applied to May 2013 ridership levels.

Boarding and Alighting Activity on Commuter Routes

Boarding and alighting counts were also conducted for the El Dorado Transit commute routes in May 2011, and applied to May 2013 ridership statistics. As shown in Table 32, 44.3 percent of commute passengers boarded at the El Dorado Hills Park-and-Ride in the mornings. The next most popular stops were the Cambridge Road Park Park-and-Ride with 16 percent of total morning commuters on a typical day, followed by the El Dorado County Fairgrounds Park-and-Ride and Ponderosa Road Park-and-Ride (13.5 and 13.2 percent of morning commute boardings, respectively).

TABLE 32: El Dorado Transit Average Boarding and Alighting: Morning Commute Routes

	# On			# Off	
Boarding Stop	#	%	**Alighting Stop**	#	%
El Dorado Hills Park-and-Ride	124	44.3%	P Street at 9th Street	44	15.2%
Cambridge Rd. Park-and-Ride	45	16.0%	P Street at 16th Street	39	13.5%
EDC Fairgrounds Park-and-Ride	37	13.3%	P Street at 11th Street	32	11.2%
Ponderosa Rd. Park-and-Ride	36	12.9%	5th Street at P Street	26	9.1%
Rodeo Rd./Coach Ln. Park-and-Ride	14	4.9%	P Street at 30th Street	25	8.5%
Central Park and Ride, Diamond Springs	12	4.2%	P Street at 13th Street	24	8.1%
Placerville Station, Placerville	7	2.4%	5th Street at L Street	17	5.7%
			H Street at 11th Street	16	5.4%
			5th Street at N Street	15	5.1%
			8th Street at I Street	9	3.0%
			8th Street at N Street	8	2.7%
			J Street at 6th Street	7	2.4%
			P Street at 21st Street	6	2.0%
			8th Street at K Street	5	1.7%
			H Street at 14th Street	5	1.7%
			9th Street at L Street	4	1.4%
			15th Street at K Street	3	1.0%
			L Street at 14th Street	1	0.3%
			N Street at 14th Street	0	0.0%
Total Observed				**284**	

Note 1: Commuter routes were surveyed in the morning to downtown; no reverse commutes (all boarded in El Dorado County, alighted in Sacramento County).

Source: LSC Transportation Consultants, Inc.--onboard surveys conducted May 2011, applied to May 2013 ridership.

FINANCIAL CHARACTERISTICS

System Expenses

El Dorado Transit expenses totaled $5,738,302 (unaudited) in FY 2012-13, as shown in Table 33. The majority of the expenses (67.5 percent) were for salaries and benefits of operating and administrative staff. After salaries and benefits, the next highest cost was fuel and lubricants (13.1 percent). Table 33 also shows the adopted budget for FY 2013-14, which indicates that overall expenses will be 6.6 percent higher (not including contingency), with increases in most categories.

TABLE 33: El Dorado Transit Expenses, Fiscal Years 2012-13 and 2013-14

	Fiscal Year 2012-13 (Actual)		Fiscal Year 2013-14 (Adopted)	
Expense (Line Item)	**Total**	**% of Total**	**Total**	**% of Total**
Salaries and Wages	$2,395,828	41.8%	$2,503,132	38.4%
Employee Benefits	$1,287,606	22.4%	$1,433,000	22.0%
Payroll taxes	$34,000	0.6%	$36,000	0.6%
Worker's Compensation Insurance	$154,000	2.7%	$177,000	2.7%
General Liability Insurance	$193,500	3.4%	$228,000	3.5%
Fuel & lubricants	$751,500	13.1%	$846,000	13.0%
Vehicle Maintenance	$251,700	4.4%	$280,700	4.3%
Professional Services	$90,000	1.6%	$120,000	1.8%
Service Contracts/Equipment	$27,500	0.5%	$51,000	0.8%
Utilities	$37,000	0.6%	$39,000	0.6%
Special Department Expense	$3,500	0.1%	$3,000	0.0%
Communications	$49,300	0.9%	$48,000	0.7%
Postage, Publications, Notices, Printing	$22,000	0.4%	$27,000	0.4%
Marketing	$3,000	0.1%	$10,000	0.2%
Office Expense/Building Maintenance	$25,100	0.4%	$24,100	0.4%
Equipments Rents Leases	$18,000	0.3%	$16,000	0.2%
Uniforms	$17,800	0.3%	$7,800	0.1%
Household Supplies	$10,750	0.2%	$15,750	0.2%
Membership and Publications	$5,000	0.1%	$5,000	0.1%
Staff Development and Training	$21,100	0.4%	$18,000	0.3%
Park and Ride & Bus Stop Expenses	$25,700	0.4%	$26,401	0.4%
Apple Hill Shuttle AB2766 Grant	$78,877	1.4%	Pending	--
Fair Shuttle AB2766 Grant	$30,949	0.5%	Pending	--
Contingency	$204,592	3.6%	$600,485	9.2%
Total Expenditures	**$5,738,302**		**$6,515,368**	

Source: El Dorado Transit, Oct 2013: FY 2012-13 Approved 8-27-13; FY 2013-14 Adopted 5-2-13

Cost Allocation Model

The operating costs for 2012-2013 presented in Table 33 were used to develop a cost allocation equation for El Dorado Transit services. Costs were allocated in three categories – vehicle-hour, vehicle-mile, or fixed – depending upon the service parameter that most directly generates the cost item. For example, fuel costs are allocated to vehicle-miles. Personnel costs were allocated between the three categories based on the proportion of total salary attributable to each parameter. This equation allows an accurate estimation of costs associated with specific services. As shown in Table 34, $1,508,995 can be attributed to per-mile costs; $2,676,880 can be attributed to per-hour costs; and $1,630,999 is considered fixed costs (not including contingency). The resulting cost equation is as follows:

Annual Operating/Administrative Cost = ($53.72) X (vehicle-hours of service) +
($1.17 per vehicle-mile of service) + $1,630,999

This cost equation is used to evaluate service performance, discussed below, and to estimate service alternatives later in the planning process. Note that the hour and mile data reflects

totals (including both in-service and out-of-service hours and miles), in order to accurately reflect the differences in out-of-service hours/miles between the various programs.

TABLE 34: El Dorado Transit Cost Allocation Model, Fiscal Year 2012-13

Line Item	Total	Vehicle Miles	Vehicle Hours	Fixed
Salaries and Wages	$2,395,828	$319,248	$1,548,205	$691,375
Employee Benefits	$1,287,606	$163,201	$952,080	$353,915
Payroll Taxes	$34,000	$4,646	$32,605	$12,149
Worker's Compensation Insurance	$154,000	$18,700	$143,990	$24,310
General Liability Insurance	$193,500	--	--	$193,500
Fuel & lubricants	$751,500	$751,500	--	--
Vehicle Maintenance	$251,700	$251,700	--	--
Professional Services	$90,000	--	--	$90,000
Service Contracts/Equipment	$27,500	--	--	$27,500
Utilities	$37,000	--	--	$37,000
Special Department Expense	$3,500	--	--	$3,500
Communications	$49,300	--	--	$49,300
Postage, Publications, Notices, Printing	$22,000	--	--	$22,000
Marketing	$3,000	--	--	$3,000
Office Expense/Building Maintenance	$25,100	--	--	$25,100
Equipments Rents Leases	$18,000	--	--	$18,000
Uniforms	$17,800	--	--	$17,800
Household Supplies	$10,750	--	--	$10,750
Membership and Publications	$5,000	--	--	$5,000
Staff Development and Training	$21,100	--	--	$21,100
Park and Ride & Bus Stop Expenses	$25,700	--	--	$25,700
Total Expenditures	**$5,423,884**	**$1,508,995**	**$2,676,880**	**$1,630,999**
Unit Quantities		**1,009,071**	**44,969**	**–**
Cost Per Unit		**$1.50**	**$59.53**	**–**

Source: El Dorado Transit, Oct 2013: FY 2012-13 Approved 8-27-13; FY 2013-14 Adopted 5-2-13. Does not include contingency.

System Revenues

The revenue sources required to support El Dorado Transit's administration, operations and maintenance are drawn from a number of sources. Table 35 shows the unaudited revenues received in FY 2012-13, totaling $5,738,302. As indicated, the largest source of income for El Dorado Transit is Local Transportation Funds (LTF) funds which account for 61.2 percent of the budget. The next largest source of revenue is passenger fares (16.7 percent of the revenues) which included cash fares, scrip, and local and commuter bus pass sales. FTA Section 5311 (for urbanized areas) accounted for 6.7, with an additional 4.3 percent from an FTA Section 5307 (rural area) preventative maintenance grant. Revenue from contracted services brought in 7.7 percent of the total revenue for FY 2012-13. A small portion of the revenue (1.5 percent) comes from AB 2766 (air quality improvement grants) funding for operation of the Apple Hill® Shuttle and the Fair Shuttle. Table 35 also shows the adopted budget for FY 2013-14. The biggest change is an expected increase in STA funds (none were included in FY 2012-13). Grant funding for the Apple Hill® Shuttle was not sought for FY 2014 and FY 2015, and Fair Shuttle funding is still pending.

TABLE 35: El Dorado Transit Revenues, Fiscal Years 2012-13 and 2013-14

Revenues	Fiscal Year 2012-13 (Actual) Total	% of Total	Fiscal Year 2013-14 (Adopted) Total	% of Total
Passenger Fares [1]	$1,066,400	18.6%	$1,086,217	16.7%
Contracted Services	$440,300	7.7%	$420,000	6.4%
Charter Service Revenue	$4,100	0.1%	$5,000	0.1%
Local Transportation Funds (LTF)	$3,510,966	61.2%	$3,382,277	51.9%
State Transit Assistance Funds (STA)	$0	0.0%	$928,511	14.3%
Federal Transit Administration 5311 Grant	$372,427	6.5%	$372,427	5.7%
Federal Transit Administration 5307 Grant (PM)	$244,522	4.3%	$200,000	3.1%
Advertising Revenue	$0	0.0%	$5,000	0.1%
Misc Revenue	$0	0.0%	$400	0.0%
Apple Hill Shuttle AB2766 Grant	$55,848	1.0%	$53,890	0.8%
Fair Shuttle AB2766 Grant	$28,139	0.5%	Pending	--
Interest Revenue	$15,600	0.3%	$18,000	0.3%
Offset Reserve Fund - CalTIP (restricted)	--	0.0%	$43,646	0.7%
Total Operating Revenue	$5,738,302		$6,515,368	

Note 1: Passenger Fares include cash fares, pass sales and scrip.

Source: El Dorado Transit, Oct 2013: FY 2012-13 Approved 8-27-13; FY 2013-14 Adopted 5-2-13

EDCTC allocates the LTF funds, as determined by population, for Western El Dorado County and the Tahoe Regional Planning Agency allocates the LTF funds, as determined by population, for the eastern slope of El Dorado County. For FY 2013/2014, the County Auditor estimates EDCTC's share of LTF revenues for apportionment to be $3,868,948. The State Controller's Office estimates EDCTC's share of State Transit Assistance (STA) revenues to be $890,197 for FY 2013/2014. El Dorado County Transit Authority notified EDCTC by letter dated February 14, 2013 they intended to submit a claim for $3,382,277.18 of FY 2013/2014 Local Transportation Funds for operating expenses.

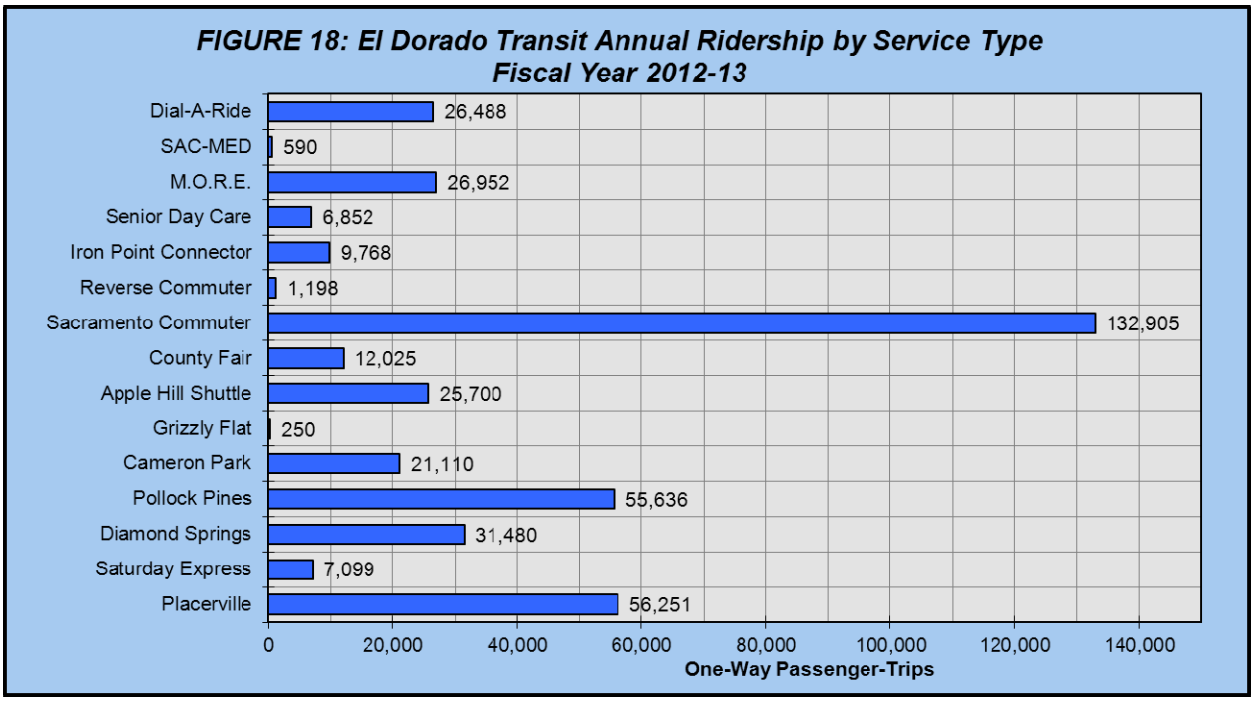
FISCAL YEAR 2012/13 SYSTEM PERFORMANCE ANALYSIS

To gain further insight into the efficiency and effectiveness of El Dorado Transit services, it is useful to conduct an analysis of ridership and operating data on a service category basis. Ridership and operating statistics for FY 2012/13 were reviewed to identify average activity, marginal costs, allocated costs, allocated subsidy, fare box ratio, and average fares. Tables 35 and 36 present this analysis of financial performance indicators for each type route/service.

Ridership

As discussed above, annual ridership by route/service ranges from a low of 250 on the Grizzly Flats rural route to a high of 132,905 on the Sacramento Commuter service. Other relatively high ridership routes include the Placerville Route with 56,251 annual one-way passenger-trips, followed by Pollock Pines (55,636) and Diamond Springs (31,480). The Dial-A-Ride carried 26,488 one-way passenger trips, just under the 26,952 passenger trips provided by contract for

MORE. Total systemwide ridership for FY 2012/13 was 414,304 one-way passenger-trips. Ridership by route is depicted in Figure 18.



Allocated Operating Costs

The systemwide operating cost in FY 2012/13 was $4,185,875. Allocating fixed costs by the proportion of vehicle-hours of service, $1,349,703 in operating funds was required for the local route services, $1,170,243 was required for Commuter services and $1,078,990 was required for the Dial-A-Ride service. The operating cost by route and service is presented in Figure 19.

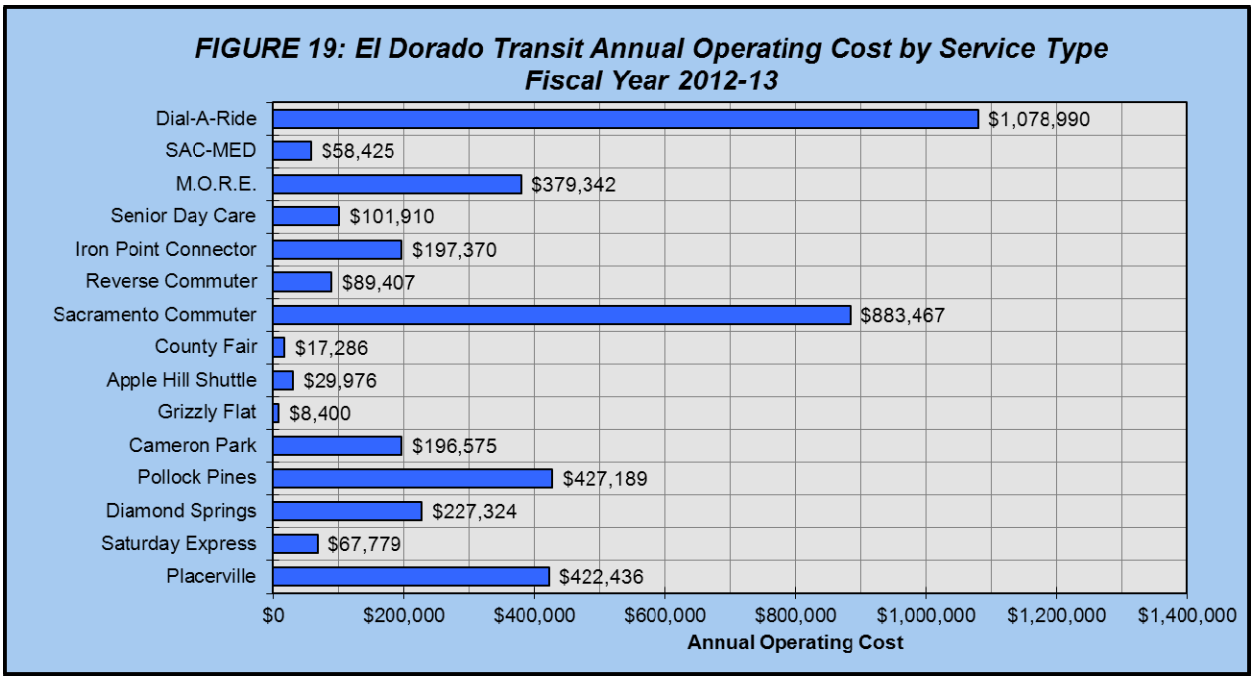
Operating Subsidy

As presented in Tables 36 and 37 and Figure 20, subtracting the systemwide farebox revenues of $1,513,705 from total operating costs indicates that the total operating subsidy required to fund services was $2,672,170. The local and rural routes required the greatest annual subsidy ($1,158,042), followed by the Dial-A-Ride ($1,008,190). El Dorado Transit's total operating subsidy is nearly equal for Dial-A-Ride (37 percent of subsidized costs) and local routes (38 percent of subsidized costs). The Commuter service required 14 percent of operating subsidy.

Marginal Farebox Recovery Ratio

The financial efficiency of a system can be measured by the farebox recovery ratio, which is illustrated in the table and compared by route/service category in Figure 21. The farebox recovery ratio is particularly important as a measurement for meeting the mandated minimums required for state Transportation Development Act funding. This discussion focuses on the marginal farebox ratio based on the variable costs of the individual services (excluding fixed costs). The systemwide marginal farebox recovery ratio in FY 2012/13 was 36.2 percent. By service category, the MORE program boasted the highest farebox recovery ratio (116.1 percent,

indicating that revenues exceed marginal operating costs), followed by the commuter services (66.6 percent) and the local and rural route services (14.2 percent). As shown in Figure 21, the local routes had relatively equal marginal farebox ratios, ranging between 12.4 percent and 16.3 percent. It should be noted that the Sacramento Commuter farebox recovery ratio is relatively high in comparison with most other transit services in rural California, and significantly helps to ensure that the overall systemwide ratio exceeds the state requirements.



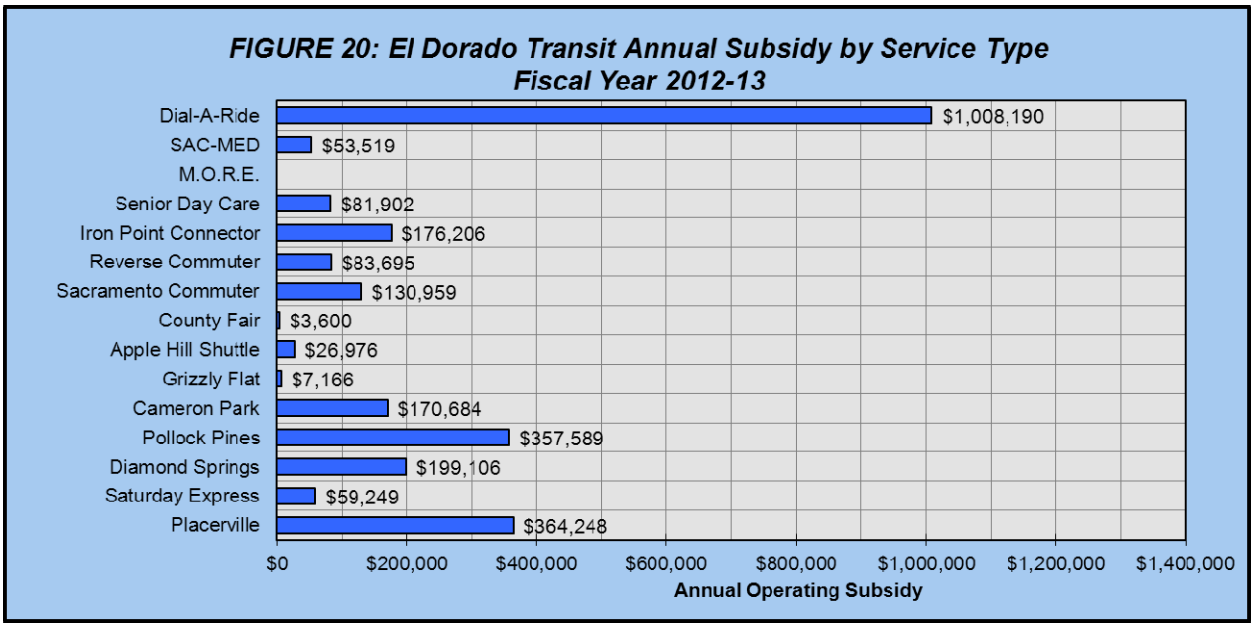


TABLE 36: El Dorado Transit Operating Data and Performance Indicators - Local/ Rural Routes and Special Event Services

Fiscal Year 2012-2013

	Local Community and Rural Routes							Special Event Services		
	Placerville(1)	Saturday Express	Diamond Springs	Pollock Pines	Cameron Park	Grizzly Flat	*Local and Rural Routes Subtotal*	County Fair	Apple Hill Shuttle	*Special Services Subtotal*
Operating Data										
One-Way Passenger-Trips	56,251	7,099	31,480	55,636	21,110	250	*171,826*	12,025	25,700	*37,725*
Marginal Operating Cost	$422,436	$67,779	$227,324	$427,189	$196,575	$8,400	*$1,349,703*	$17,286	$29,976	*$47,262*
Farebox Revenues	$58,188	$8,530	$28,218	$69,600	$25,891	$1,234	*$191,661*	$3,600	$3,000	*$6,600*
Subsidy Required	$364,248	$59,249	$199,106	$357,589	$170,684	$7,166	*$1,158,042*	$13,686	$26,976	*$40,662*
Vehicle Total Hours	5,337	758	2,729	4,735	2,098	82	*15,739*	215	376	*591*
Vehicle Total Miles	70,038	15,151	43,381	97,180	47,957	2,353	*276,060*	2,991	5,078	*8,069*
Performance Indicators										
Average Fare [2]	$1.03	$1.20	$0.90	$1.25	$1.23	$4.94	*$1.12*	$0.30	--	*$0.17*
Marginal Farebox Recovery Ratio [3]	13.8%	12.6%	12.4%	16.3%	13.2%	14.7%	*14.2%*	20.8%	--	*14.0%*
Operating Cost Per Trip	$7.51	$9.55	$7.22	$7.68	$9.31	$33.60	*$7.86*	$1.44	$1.17	*$1.25*
Subsidy Per Trip	$6.48	$8.35	$6.32	$6.43	$8.09	$28.66	*$6.74*	$1.14	$1.05	*$1.08*
Trips Per Vehicle-Hr	10.5	9.4	11.5	11.7	10.1	3.0	*10.9*	55.9	68.4	*63.8*
Trips Per Vehicle-Mi	0.80	0.47	0.73	0.57	0.44	0.11	*0.62*	4.02	5.06	*4.68*

Note 1: Includes 1,466 passengers served under the "Main Street Shuttle" juror service.

Note 2: Average fare is calcuated as the total annual fare by service type divided by total passenger trips by service type.

Note 3: Farebox recover ratio is the total annual fare per service type divided by the operating cost by service type.

Source: EDCTA Administrative Operations Reports, Fiscal Year 2012/2013.

TABLE 37: El Dorado Transit Operating Data and Performance Indicators - Commuter Services, Social Services, Dial-A-Ride

Fiscal Year 2012-2013

	Commuter Services				Contracted Social Services					
	Sacto Commuter	Reverse Commuter[1]	Iron Point Connector	*Subtotal Commuter Services*	Senior Day Care	M.O.R.E.	*Subtotal Social Services*	SAC-MED	Dial-A-Ride	**El Dorado Transit System Total [2]**
Operating Data										
One-Way Passenger-Trips	132,905	1,198	9,768	*143,871*	6,852	26,952	33,804	590	26,488	**414,304**
Marginal Operating Cost	$883,467	$89,407	$197,370	*$1,170,243*	$101,910	$379,342	$481,252	$58,425	$1,078,990	**$4,185,875**
Farebox Revenues	$752,508	$5,712	$21,164	*$779,384*	$20,008	$440,346	*$460,354*	$4,906	$70,800	**$1,513,705**
Subsidy Required	$130,959	$83,695	$176,206	*$390,859*	$81,902	-$61,004	*$20,898*	$53,519	$1,008,190	**$2,672,170**
Vehicle Hours	8,325	777	1,946	*11,048*	1,015	4,091	*5,106*	564	11,921	**44,969**
Vehicle Miles	259,390	28,857	54,519	*342,766*	27,744	90,820	*118,564*	16,618	246,994	**1,009,071**
Performance Indicators										
Average Fare [2]	$5.66	$4.77	$2.17	*$5.42*	$2.92	$16.34	*$13.62*	$8.32	$2.67	**$3.65**
Marginal Farebox Recovery Ratio [3]	85.2%	6.4%	10.7%	*66.6%*	19.6%	116.1%	*95.7%*	8.4%	6.6%	**36.2%**
Operating Cost Per Trip	$6.65	$74.63	$20.21	*$8.13*	$14.87	$14.07	*$14.24*	$99.02	$40.74	**$10.10**
Subsidy Per Trip	$0.99	$69.86	$18.04	*$2.72*	$11.95	-$2.26	*$0.62*	$90.71	$38.06	**$6.45**
Trips Per Vehicle-Hr	16.0	1.5	5.0	*13.0*	6.8	6.6	*6.6*	1.0	2.2	**9.2**
Trips Per Vehicle-Mi	0.51	0.04	0.18	*0.42*	0.25	0.30	*0.29*	0.04	0.11	**0.41**

Note 1: Although the Reverse Commuter route is separated from the Sacto Commuter route to display marginal performance indicators, no additional costs are incurred by operating the Reverse route.

Note 2: Includes totals from Table 36.

Note 3: Average fare is the total annual fare for service type divided by total passenger trips per service type.

Note 4: Farebox recover ratio is the total annual fare per service type divided by the operating cost by service type.

Source: El Dorado Transit Administrative Operations Reports, Fiscal Year 2012/2013.

Operating Cost per Passenger-Trip

Another measure of each service's financial efficiency is provided by the operating cost per one-way passenger-trip. The systemwide operating cost per one-way passenger-trip in FY 2012/13 was $10.10. As shown in Figure 22, Special Event Services such as the Apple Hill® Shuttle and the Fair Shuttle achieved the lowest cost per one-way passenger-trip ($1.17 and $1.44, respectively) followed by the Sacramento Commuter service ($6.65), Diamond Springs Service ($7.22) and Placerville Route ($7.51). The Sac-Med and Reverse Commute services generated the highest operating cost per one-way passenger-trip ($99.02 and $74.63, respectively). It should be noted that the Reverse Commuter route consists almost entirely of bus trips that need to be operated as "deadhead" trips as part of the Sacramento Commuter service (though the cost allocation procedure assigns the full cost of the scheduled runs to this service). If this service were to be eliminated, most of the costs would still be incurred (as is true with the Main Street Shuttle, which is served as part of the Placerville Route).

Operating Subsidy per Passenger-Trip

When fare revenue is subtracted from the total cost and divided by the number of one-way passenger-trips, the subsidy required per one-way 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" (one-way passenger-trips). The system as a whole required a subsidy of $6.45 per one-way passenger-trip. As indicated in Figure 23, the MORE revenues exceed the marginal costs (thus helping to cover some of the fixed costs), resulting in a negative subsidy per passenger-trip of $2.26. The Sacramento Commuter had the next lowest operating subsidy per passenger-trip at $0.99, while special services (Apple Hill® Shuttle and Fair Shuttle) required $1.05 to $1.14. At the other extreme, the Sac-Med service required $90.71 for each one-way passenger trip, and the Reverse Commuter route required $69.86 for each one-way passenger-trip (fully allocating the cost of the scheduled trips to this service).

Passenger-Trips per Vehicle-Hour of Service

An important measure of service effectiveness is "productivity," defined as the number of one-way passenger-trips provided per vehicle service hour. As presented in the table, the system as a whole achieved a productivity of 9.2 one-way passenger-trips per vehicle service hour. Figure 24 shows that the Apple Hill® Shuttle boasted the highest productivity (68.4), followed by the County Fair Service (55.9). The Sacramento Commuter route carried 16.0 passenger trips per hour of service. The Sac-MED route and the Reverse Commute service attained the lowest productivity figure (1.0 and 1.5 one-way passenger-trips per vehicle service hour, respectively), followed by the Dial-A-Ride (2.2) and Grizzly Flat (3.0).

Passenger-Trips per Vehicle-Mile of Service

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 0.41. By service category the Special Event Services provided the greatest number of one-way passenger-trips per vehicle service mile (4.02 to 5.06), followed by the Placerville Route (0.80) and Diamond Springs Route (0.73). The commuter services carried 0.51 passengers per mile of service. See Figure 25 for details on each route and service.

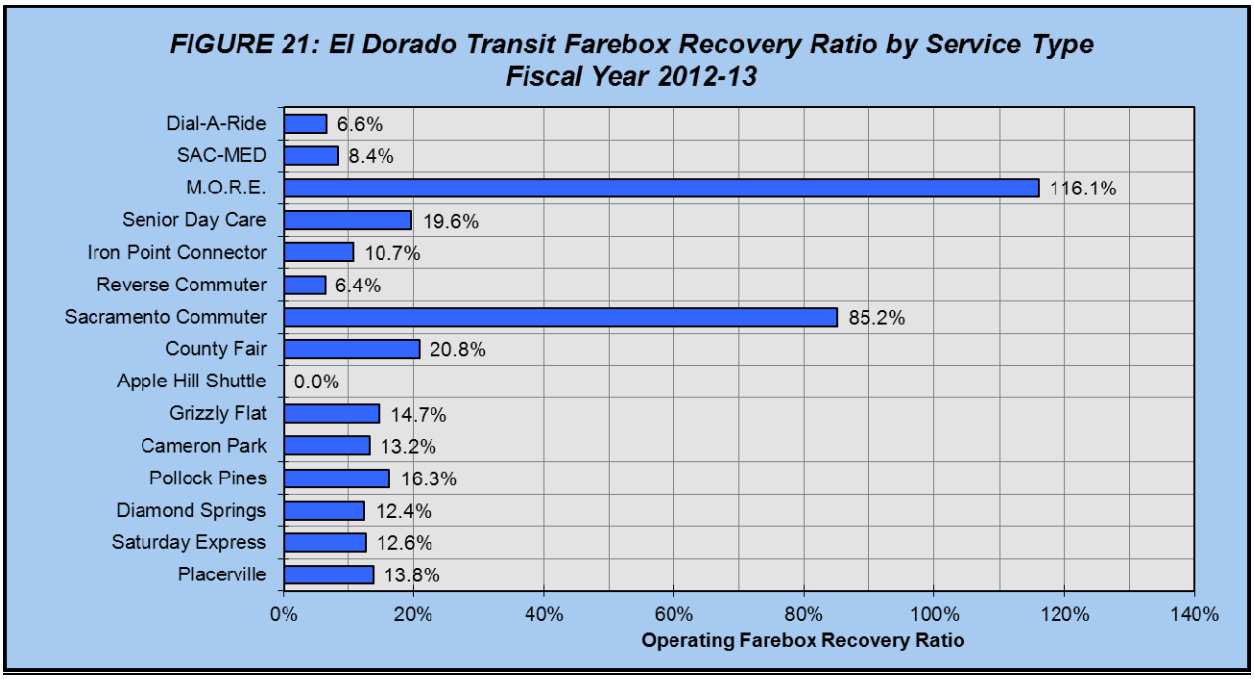


FIGURE 21: El Dorado Transit Farebox Recovery Ratio by Service Type
Fiscal Year 2012-13
Dial-A-Ride 6.6%
SAC-MED 8.4%
M.O.R.E. 116.1%
Senior Day Care 19.6%
Iron Point Connector 10.7%
Reverse Commuter 6.4%
Sacramento Commuter 85.2%
County Fair 20.8%
Apple Hill Shuttle 0.0%
Grizzly Flat 14.7%
Cameron Park 13.2%
Pollock Pines 16.3%
Diamond Springs 12.4%
Saturday Express 12.6%
Placerville 13.8%
0% 20% 40% 60% 80% 100% 120% 140%
Operating Farebox Recovery Ratio

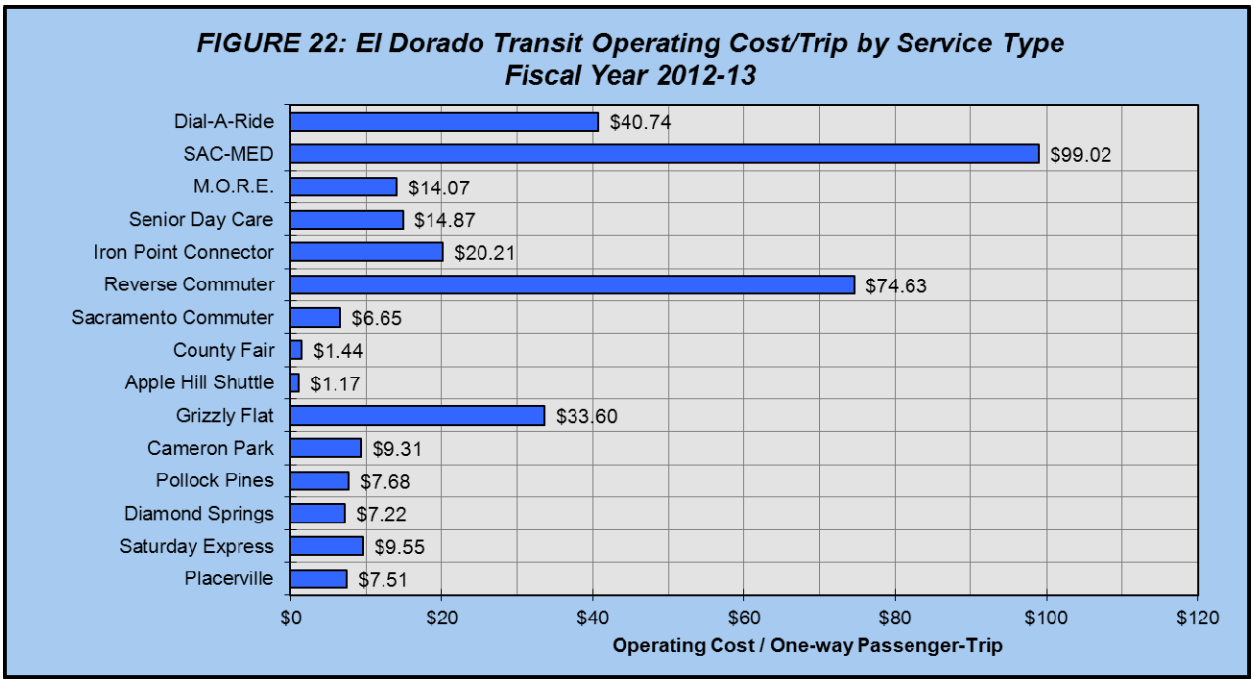


FIGURE 22: El Dorado Transit Operating Cost/Trip by Service Type
Fiscal Year 2012-13
Dial-A-Ride $40.74
SAC-MED $99.02
M.O.R.E. $14.07
Senior Day Care $14.87
Iron Point Connector $20.21
Reverse Commuter $74.63
Sacramento Commuter $6.65
County Fair $1.44
Apple Hill Shuttle $1.17
Grizzly Flat $33.60
Cameron Park $9.31
Pollock Pines $7.68
Diamond Springs $7.22
Saturday Express $9.55
Placerville $7.51
$0 $20 $40 $60 $80 $100 $120
Operating Cost / One-way Passenger-Trip

FIGURE 23: El Dorado Transit Operating Subsidy/Trip by Service Type
Fiscal Year 2012-13

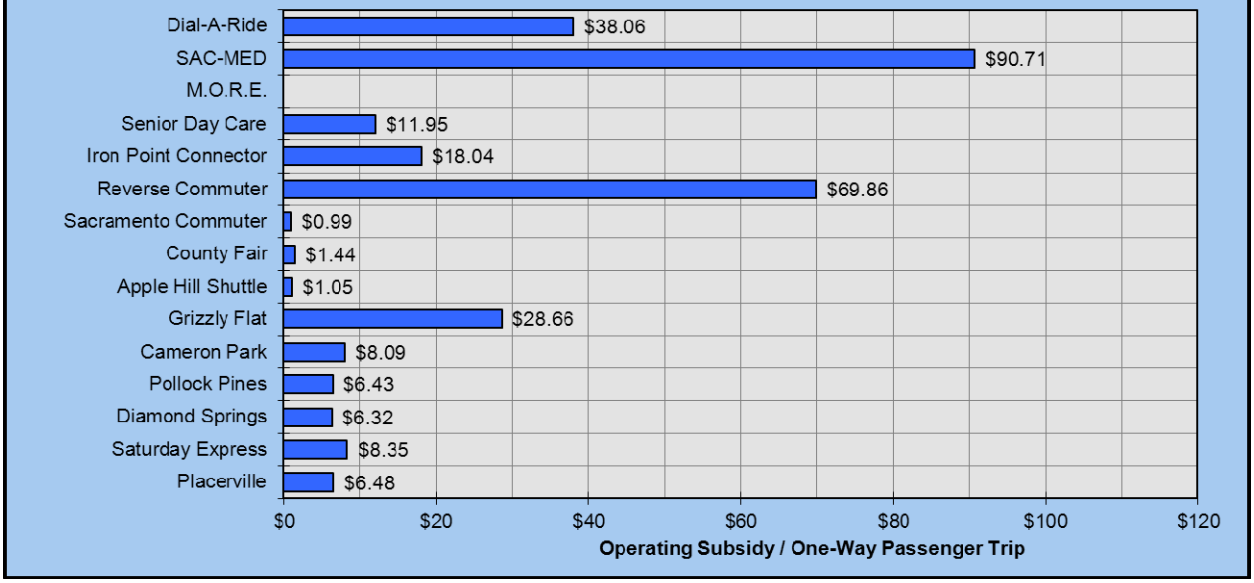
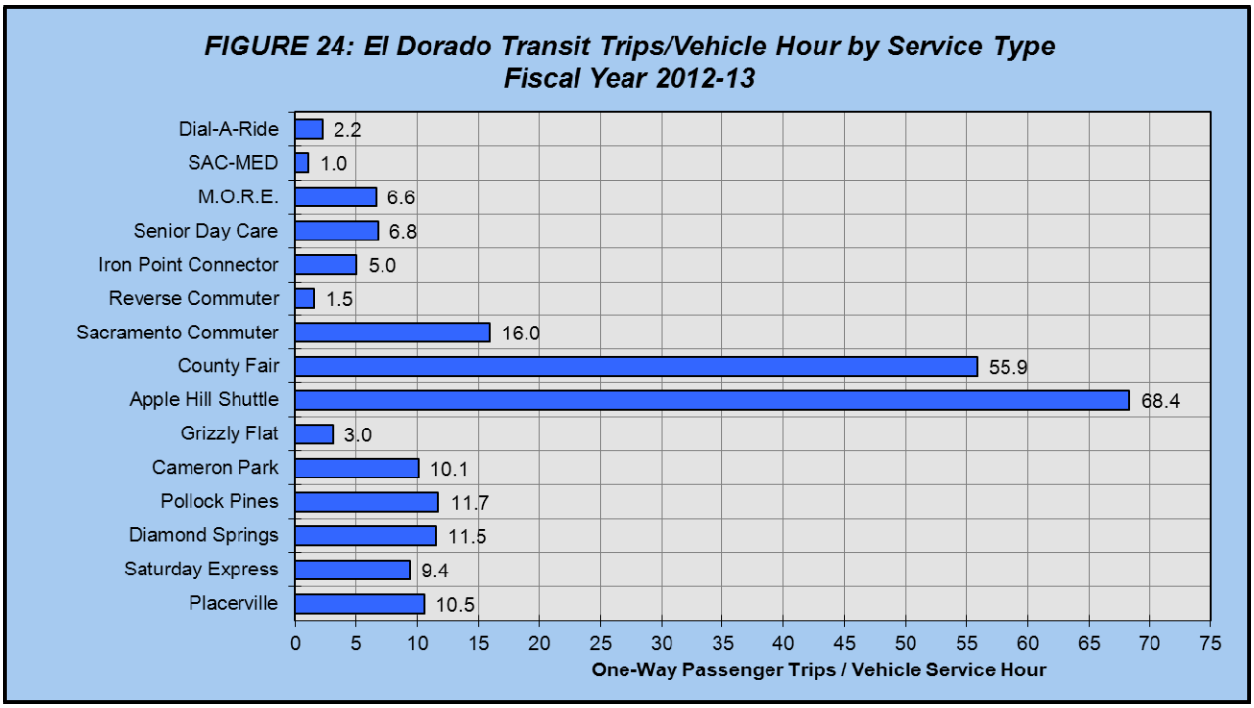
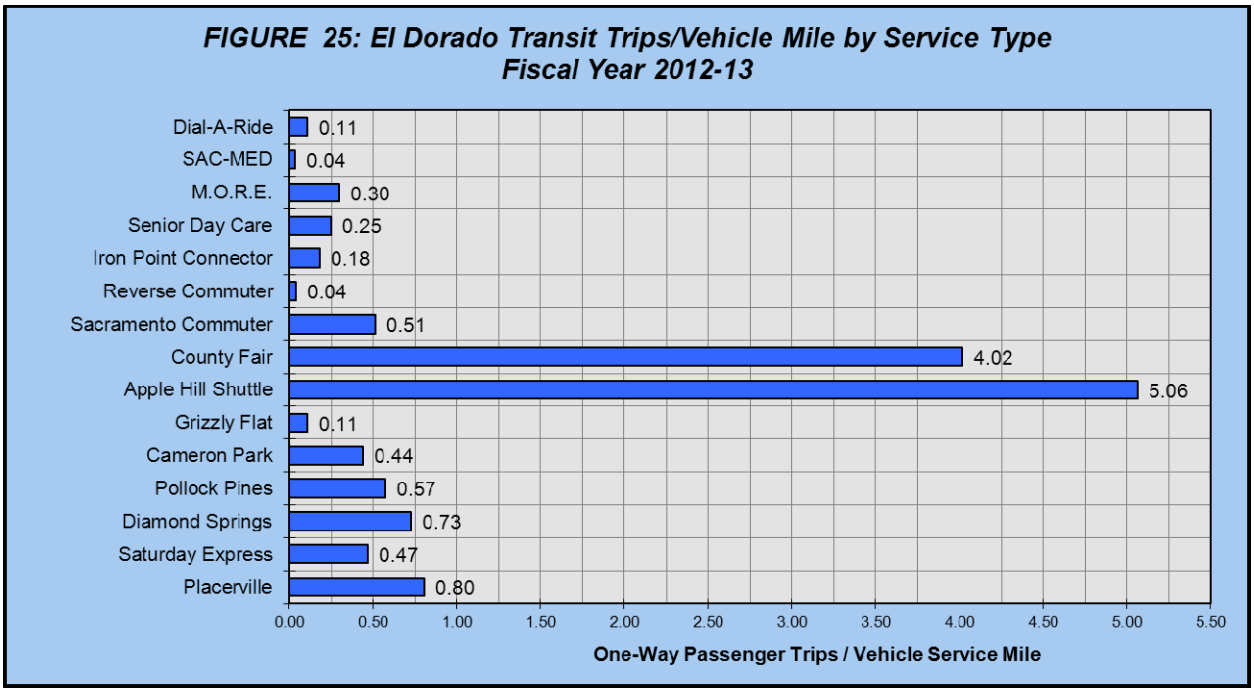


FIGURE 24: El Dorado Transit Trips/Vehicle Hour by Service Type
Fiscal Year 2012-13





TRANSIT CAPITAL ASSETS

Transit Operations / Maintenance Facility

El Dorado Transit's operations and maintenance facility is located at 6565 Commerce Way in Diamond Springs. California State Proposition 116 and local transportation funds financed the acquisition of the office building, land, tenant improvement and construction of the maintenance facility. These facilities include a 4,999 square foot office building for the administrative and operations departments, as well as a 7,470 square foot maintenance facility. Reflecting El Dorado Transit operations, staff is on-site at this facility seven days a week. All El Dorado Transit's staff is based in this facility, which includes administrative offices, a transit dispatch center, driver's check-in locker room, and employee break room. The conference room is also utilized for transit driver classroom training.

The maintenance facility includes three maintenance bays, a drive-through bus wash, parts supply room, a mechanic's break room, and the Senior Equipment Mechanic's office. This facility includes one in-ground bus lift and two portable lifts. The fully-fenced bus parking lot is striped to accommodate up to 62 vehicles. Fueling occurs off-site at Dawson Oil Company and Hunt & Sons. Steam cleaning equipment was installed in the 2013, while new lifts and emergency back-up generators are planned for 2013/14.

El Dorado Transit Vehicle Fleet

As of October 2013, the El Dorado Transit vehicle fleet consisted of 49 revenue vehicles (including two held in surplus). As presented in Table 38, the revenue vehicles range in capacity from 5 to 57 passengers; all of the revenue vehicles are equipped with wheelchair lifts and securement positions. The average age of the revenue fleet is 5.8 years, and the average

accumulated mileage is 142,000 per revenue vehicle. A total of 39 revenue vehicles are eligible for replacement in the next five years.

Vehicle utilization over the course of a busy weekday is shown in Table 39. This information includes both in-service and out-of-service times needed to operate the services. As shown, up to 27 vehicles are in operation at peak times. By individual service category, up to 7 vehicles are in operation on the local/fixed routes, 9 vehicles on the commuter service, and 12 vehicles on the paratransit services. It is important to note that this excludes the necessary spare vehicles, and vehicles used for special services.

Over the three years period from July 2010 through June 2013, there were a total of 197 road calls required to service the transit fleet (an average of 66 per year). Of these, 93 were required for the Local Routes, 52 for the Dial-A-Ride/Rural/Special Services, and the remaining 42 for the Commuter Routes.

Park and Ride Facilities

Western El Dorado County has a network of park-and-ride facilities in the US Highway 50 Corridor which facilitate multiple modes of transportation and make commuting easier. Table 40 lists the current park-and-ride lots within Western El Dorado County, indicating that overall the facilities provide a total of 1,019 parking spaces. While a majority is served by El Dorado Transit, only 5 of 14 facilities have bike lockers.

Bus Stops and Bus Shelters

El Dorado Transit continues to improve passenger amenities, including the placement of bus stop benches and shelters. There are currently twenty-three bus stop locations with passenger shelters (and benches). Additionally, bus benches (without shelters) are provided at fifteen bus stops throughout the El Dorado Transit system. Table 41 provides a listing of existing bus stops with shelters and benches (within Western El Dorado County).

OTHER TRANSIT PROVIDERS IN WESTERN EL DORADO COUNTY

In addition to El Dorado Transit, there are several other transportation providers serving Western El Dorado County. Summary descriptions of the available transportation services are described below.

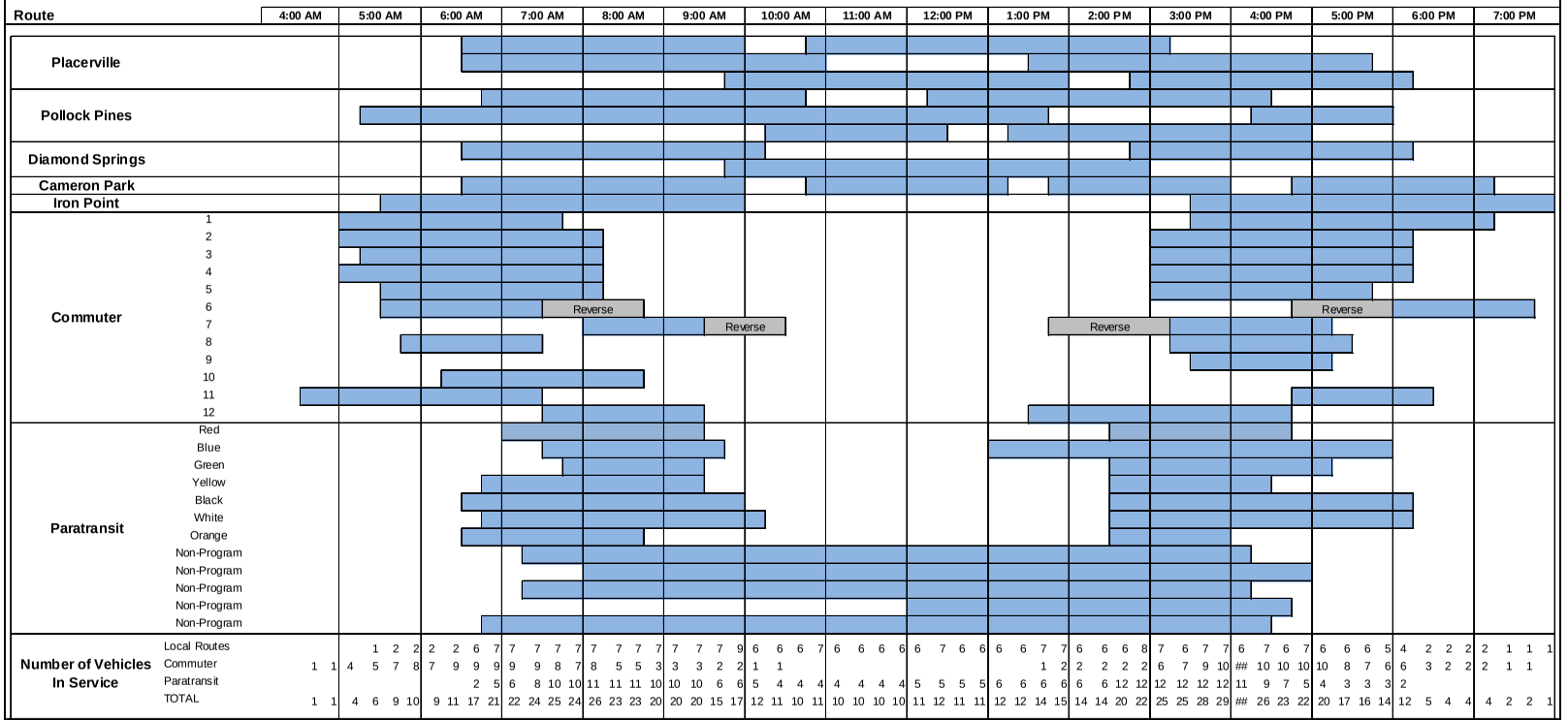
Senior Shuttle Program – Operated by the El Dorado County Health and Human Services Agency, this program assists adults 60 years and older with grocery shopping trips two to three times each week and monthly outings to Senior Nutrition Dining Centers. There are seven different Senior Dining Centers within Western El Dorado County: Placerville, Diamond Springs, Pollock Pines, Greenwood, Somerset, and El Dorado Hills. Using volunteer drivers, one van is used to transport approximately 140 seniors each month. The Senior Shuttle Program operates in Placerville, Diamonds Springs, and is beginning service in El Dorado Hills.

TABLE 38: El Dorado Transit Vehicle Roster

#	Manufacture Year	Type	Seating Capacity		Service Used for	End of Useful Life	Mileage
			Ambulatory	Wheelchair			
601	2006	Bluebird bus	45	2	Commuter	2016	19,049
602	2006	Bluebird bus	45	2	Commuter	2016	148,163
603	2006	Bluebird bus	45	2	Commuter	2016	107,460
604	2006	Bluebird bus	45	2	Commuter	2016	150,613
605	2006	Bluebird bus	45	2	Commuter	2016	236,814
606	2006	Bluebird bus	37	2	Commuter	2016	210,601
607	2006	Bluebird bus	37	2	Commuter	2016	230,785
608	2006	Bluebird bus	37	2	Commuter	2016	227,527
609	2006	Bluebird bus	37	2	Commuter	2016	171,649
610	2006	Bluebird bus	37	2	Commuter	2016	169,343
1001	2010	MCI coach	57	2	Commuter	2020	162,415
1002	2010	MCI coach	57	2	Commuter	2020	143,520
1003	2010	MCI coach	57	2	Commuter	2020	152,257
1004	2010	MCI coach	57	2	Commuter	2020	131,636
1005	2010	MCI coach	57	2	Commuter	2020	128,270
1006	2010	MCI coach	57	2	Commuter	2020	156,527
1007	2010	MCI coach	57	2	Commuter	2020	154,710
1008	2010	MCI coach	57	2	Commuter	2020	119,618
1009	2010	MCI coach	57	2	Commuter	2020	128,755
1202	2012	MCI coach	57	2	Commuter	2022	128,755
803	2008	Minivan	5	1	Demand Response	2013	178,654
1010	2010	Minivan	5	1	Demand Response	2015	76,378
1011	2010	Minivan	5	1	Demand Response	2015	97,279
1012	2010	Minivan	5	1	Demand Response	2015	85,298
1013	2010	Minivan	5	1	Demand Response	2015	53,631
1101	2001	Minivan	5	1	Demand Response	2006	39,436
1301	2013	Minivan	5	1	Demand Response	2018	4,598
1302	2013	Minivan	5	1	Demand Response	2018	3,984
1303	2013	Minivan	5	1	Demand Response	2018	1,189
1304	2013	Minivan	5	1	Demand Response	2018	169
201	2002	Cutaway	20	2	Demand Response/Local Routes	2009	266,717
202	2002	Cutaway	20	2	Backup	2009	312,745
304	2003	Cutaway	20	2	Demand Response/Local Routes	2010	235,122
305	2003	Cutaway	20	2	Backup	2010	267,466
703	2007	Cutaway	26	2	Demand Response/Local Routes	2014	174,201
704	2007	Cutaway	26	2	Demand Response/Local Routes	2014	194,110
705	2007	Cutaway	26	2	Demand Response/Local Routes	2014	215,804
706	2007	Cutaway	26	2	Demand Response/Local Routes	2014	272,172
707	2007	Cutaway	26	2	Demand Response/Local Routes	2014	221,355
708	2007	Cutaway	26	2	Demand Response/Local Routes	2014	244,904
901	2009	Cutaway	26	2	Demand Response/Local Routes	2016	147,573
902	2009	Cutaway	26	2	Demand Response/Local Routes	2016	137,168
903	2009	Cutaway	26	2	Demand Response/Local Routes	2016	123,351
904	2009	Cutaway	26	2	Demand Response/Local Routes	2016	92,595
905	2009	Cutaway	26	2	Demand Response/Local Routes	2016	95,898
906	2009	Cutaway	26	2	Demand Response/Local Routes	2016	99,147
907	2009	Cutaway	26	2	Demand Response/Local Routes	2016	110,999
908	2009	Cutaway	26	2	Demand Response/Local Routes	2016	91,772
1201	2011	Cutaway	26	2	Demand Response/Local Routes	2018	14,261

Source: El Dorado Transit, October 2013

TABLE 39: EDCTA Weekday Vehicle Utilization by Route & Time of Day



Number of Vehicles In Service	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM
Local Routes		1 2 2	2 2 6 7	7 7 7 7	7 7 7 7	7 7 7 9	6 6 6 7	6 6 6 6	6 7 6 6	6 6 7 7	6 6 6 8	7 6 7 7	6 7 6 7	6 6 6 5	4 2 2 2	2 1 1 1
Commuter	1 1	4 5 7 8	7 9 9 9	9 9 8 7	8 5 5 3	3 3 2 2	1 1			1 2	2 2 2 2	6 7 9 10	## 10 10 10	10 8 7 6	6 3 2 2	2 1 1
Paratransit			2 5	6 8 10 10	11 11 11 10	10 10 6 6	5 4 4 4	4 4 4 4	5 5 5 5	6 6 6 6	6 12 12 12	12 12 12 12	11 9 7 5	4 3 3 3	2	
TOTAL	1 1	4 6 9 10	9 11 17 21	22 24 25 24	26 23 23 20	20 20 15 17	12 11 10 11	10 10 10 10	11 12 11 11	12 12 14 15	14 14 20 22	25 25 28 29	## 26 23 22	20 17 16 14	12 5 4 4	4 2 2 1

Note 1: The Dial-A-Ride run sheets for Wednesday May 6, 2013 was used for this analysis.

TABLE 40: Western El Dorado County Park-and-Ride Lots

Community	Location	Parking Spaces	Bike Lockers	Transit Serving Lot
Cameron Park	Cambridge Road & US 50	73	Yes	EDT
	US 50 and Cameron Drive	33	No	EDT
	Rodeo Road	50	No	EDT
Camino Heights	Sierra Blanca Drive	24	No	No
Cool	SE Corner of Highway 193 and Highway 49	14	No	No
Diamond Springs	Commerce Way	84	Yes	EDT
El Dorado Hills	White Rock Road and Latrobe Road	120	Yes	EDT
Placerville	Missouri Flat Road and Mother Lode Drive	70	No	EDT
	Fairgrounds (Placerville Dr.)	200	Yes	EDT
	Placerville Station (Mosquito Rd.)	130	Yes	EDT
Shingle Springs	Ponderosa Road and Wild Chaparral	111	No	EDT
	N Shingle Road	19	No	No
	Shingle Springs Dr.	19	No	No
	South Shingle Rd and Durock Rd S. of 50	57	No	No
Unincorporated	US 50 and Greenstone Road	22	No	No
Total		1,026		

Source: Sacramento Area Council of Governments (www.SacRegion511.org), PNR Master Plan

TABLE 41: El Dorado Transit Shelter and Bench Locations

Bus Stops with Shelters

Bel Air (Goldorado Center, Shingle Springs)
Big 5 (Placerville Dr., Placerville)
Broadway and Schnell School Rd. (Placerville)
Cambridge Road Park and Ride (Cameron Park)
Cameron Park Dr. and Green Valley Rd. (Cameron Park)
Central Transit Center (Diamond Springs)
Coloma Court (Placerville)
Cottonwood Senior Apts. (Placerville)
El Dorado Hills Park and Ride (EDH)
El Dorado Transit Offices (Diamond Springs)
Forni Rd. and Lo-Hi Way (Placerville)
Home Depot, Placerville Dr. (Placerville)
Market Court (Shingle Springs)
Marshall Hospital (Placerville)
Missouri Flat Transfer Center (Diamond Springs)
Placerville Library/Govt. Center (Placerville)
Placerville Station Transfer Center/Park and Ride
Prospector Plaza (Placerville)
Regal Theaters (Placerville)
Safeway Plaza (Pony Express Trail, Pollock Pines)
Victory Mine Building (Diamond Springs)
Trailside Terrance Apartments (Shingle Springs)
Tunnel Street Apts. (Placerville)
Woodman Circle (Placerville)

Bus Stops with Benches

Big Lots (Fair Lane) (Placerville)
Broadway and Carson Rd. (Placerville)
Carson Rd. and Larson Dr. (Placerville)
Cold Springs Dental (Placerville)
Diamond Springs Mobile Home Park (Diamond Springs)
DMV, Placerville Office
Eskaton Lincoln Manor (Placerville)
Fowler Way (Placerville)
Golden Center Ct. (Building 1, Placerville)
Panther Ln. (Diamond Springs)
Placerville Post Office
Placerville Senior Center
Pleasant Valley Rd. and Church St. (Diamond Springs)
Pleasant Valley Rd. and Diamond Meadows Way
Rite Aid (Broadway, Placerville)

Source: El Dorado Transit

Health and Human Services Agency, Mental Health – The Mental Health division of Health and Human Services Mental Health provides transportation assistance to its Full Service Partnership clients.

Snowline Hospice Volunteer Services – Snowline Hospice is a non-profit, community-based organization dedicated to meeting the unique physical, emotional, and spiritual needs of those who are nearing the end of their life. As part of the program, volunteers often provide transportation for clients to medical appointments.

Placerville Advocacy, Vocational, and Educational Services (PAVES) – PAVES provides training in areas of self-help skills, advocacy, community integration, and pre-employment for adults with developmental disabilities. Volunteers provide transportation for clients.

The Gates Recovery Foundation – The Gates Recovery Foundation offers detoxification services, substance abuse counseling, and recovery programs to those individuals who suffer from alcohol or drug addiction. Volunteer transportation is provided.

United Cerebral Palsy (UCP) of Greater Sacramento – UCP provides adult day programs, transportation, in-home respite, independent living skills instruction, toy lending library, equine assisted therapy and sports program for people with cerebral palsy and other developmental disabilities. Specialized door-to-door transportation services are provided for clients to educational or vocational programs.

County of El Dorado Health and Human Services Agency - Adult Protective Services (APS) – The program is supervised by the California Department of Social Services and administered locally by the El Dorado County Health and Human Services Agency. It provides assistance to elderly and dependent adults who are functionally impaired, unable to meet their own needs or are victims of abuse, neglect or exploitation. In addition to crisis intervention, other emergency services can be provided such as food, transportation (vouchers for El Dorado Transit), shelter, and referrals.

Vision Coalition of El Dorado Hills and Teen Advisory Committee – The mission of the Vision Coalition is to promote activities to keep youth safe, healthy, and free from drugs, alcohol, and tobacco. The Coalition organizes volunteer transportation. The Vision Coalition is interested in partnering with other agencies such as the senior center, other non-profits, and human services agencies to share transportation costs, and may also be a good recipient for retired transit vehicles.

New West Haven (Assisted Living) – New West Haven is a residential care facility for the elderly offering residents with assistance with the activities of daily living. The program includes arranging transportation to medical and dental appointments.

50 Corridor Transportation Management Association (TMA) – The TMA promotes commuting alternatives by providing information for ridesharing and placement assistance to employers, individuals, developers, and other interested organizations.

Taxi and Limousine Services – There are several taxicab companies serving Western El Dorado County which operate 24-hour service. Although their main service area is the greater

Placerville area, they will take customers to destinations as far as South Lake Tahoe and the Sacramento International Airport. Base fares range from $4 for the first 1.5 miles to $8 for the first 3.2 miles, with a cost of $2.50 for each additional mile or fraction thereof. Fares to the Airport range between $55 and $105 or more depending on the pick-up location. In addition to taxicab companies, there are several limousine companies that serve Western El Dorado County. Furthermore, there are taxi companies within the City of Folsom which operate in El Dorado Hills and Cameron Park.

Marshall Medical Center Volunteer Driver Program

In January, 2013, Marshall Medical Center initiated a volunteer driver program to provide transportation for patients of the Cancer Clinic in Cameron Park. Thompson Chevrolet donated a vehicle, which prompted the hospital to start the program. A Marshall Medical Center employee is the volunteer coordinator. This position screens volunteers to ensure they are capable of driving (healthy, DMV record check, insurance, etcetera). Screened volunteers are then signed up with a scheduler. Trips are provided to patients from residences to the clinic in Cameron Park. In 2013, 237 passenger trips were provided. Marshall Medical Center also provides Dial-a-Ride fares (although only occasionally since starting the volunteer driver program) as well as gas cards for low income patients.

REGIONAL TRANSPORTATION SERVICES

Amtrak Thruway

Amtrak Thruway feeder bus service is provided daily from the Placerville Station Transit Center to the Sacramento Amtrak station and to Kingsbury Grade at Stateline in Nevada (as part of a longer route between Carson City Nevada and Sacramento). Eastbound, an Amtrak Thruway bus departs Sacramento at 10:15 AM, arriving at Placerville Station at 11:15 AM, arriving at the South Lake Tahoe Y Station at 12:35 PM and arriving at Kingsbury Grade at 12:50 PM. Westbound, the Amtrak Thruway bus departs Kingsbury Grade at 2:20 PM, arriving at Placerville Station at 3:35 PM and departing at 3:55 PM, arriving at Sacramento at 5:25 PM. By state law, passengers can travel along this bus route without the need to purchase a ticket that includes a rail service leg.

Chapter 4
Western El Dorado County Transit Demand Analysis

An important step in developing and evaluating transit plans is a careful analysis of the mobility needs of various segments of the population and the potential demand for transit services. This is a particularly difficult task for Western El Dorado County because it includes areas of suburban development, small urban centers, and rural areas, and is thus not easily classified.

First, existing transit demand is quantified. This is then forecast through the coming five years of the short-range transit planning period. Finally, long-range estimates are developed through 2035, in five-year increments.

EXISTING TRANSIT NEED AND DEMAND

The transit planning profession has developed differing methodologies for evaluation of transit demand in urban areas in comparison with rural areas. Accordingly, demand for the urban portion of the region is evaluated using differing methods than those used in the rural areas. (Per the 2010 US Census, the urban area generally consists of El Dorado Hills, Cameron Park, and Shingle Springs.) In addition, there are several sub-categories of demand that address both urban and rural areas.

Urban Commuter (Employment) Demand

Transit demand generated by persons commuting to employment sites is a particularly important factor in the study area. This demand is evaluated in three elements: demand by Western El Dorado County residents to downtown Sacramento, demand by Western El Dorado County residents to other employment sites in the greater Sacramento region, and demand by residents along the US 50 corridor (both in Western El Dorado County and elsewhere) to commute to employment sites in the urban areas of Western El Dorado County.

Western El Dorado County Commuters to Sacramento

An important element of the total demand for transit services in the region is commuter services. This element has become an important “market” for many Sacramento region transit systems, including El Dorado Transit. Analysis of demand is based upon the observed “mode split” (defined as the proportion of all trips made by transit) for the corridor, as well as the number of persons commuting between various locations in Western El Dorado County and downtown Sacramento. This employment center has a relatively high potential to be served by transit, due to the following factors:

- A strong concentration of employment in a confined area that can be conveniently served, providing a high number of commuters the ability to walk no more than a few blocks to work.

- Employers (notably the State of California) that provide consistent hours of operation, flexibility in terms of setting specific commute times, and financial support for the purchase of transit passes.

- Parking fees and congestion on the highway that tends to discourage auto use.

Based on these factors, a 13 percent mode split for transit could be achieved, assuming a very high level of transit service. As shown in Table 42, factored by the number of commuters and annual work days, this indicates a potential demand of 162,000 one-way passenger-trips per year. As also indicated in this table, the greatest proportion of this demand (29 percent) is generated by El Dorado Hills residents, followed by residents of areas outside of the census data places (28 percent).

TABLE 42: El Dorado County Resident Employee Transit Demand on Key Corridors External To El Dorado County

Employment Area	**Total Commuters**	Transit Mode Share	Daily Commuters	Annual 1-Way Psgr Trips	% of Subtotal	% of Total
Downtown Sacramento	2,493		299	149,600	--	74%
Subtotal by Residential Area in El Dorado County						
El Dorado Hills	*715*	*12.0%*	*86*	*42,900*	*29%*	--
Cameron Park	*293*	*12.0%*	*35*	*17,600*	*12%*	--
Placerville	*264*	*12.0%*	*32*	*15,800*	*11%*	--
Diamond Springs	*259*	*12.0%*	*31*	*15,500*	*10%*	--
Pollock Pines	*143*	*12.0%*	*17*	*8,600*	*6%*	--
Shingle Springs	*85*	*12.0%*	*10*	*5,100*	*3%*	--
Georgetown	*36*	*12.0%*	*4*	*2,200*	*1%*	--
Other portions of Western El Dorado County	*698*	*12.0%*	*84*	*41,900*	*28%*	--
Other Sacramento Region Employment Areas						
Sacramento -- Outside of Downtown	3,959	1.2%	48	23,800	--	12%
Folsom	3,551	0.5%	18	8,900	--	4%
Rancho Cordova	2,775	0.5%	14	6,900	--	3%
Roseville	1,817	0.5%	9	4,500	--	2%
Carmichael	559	0.5%	3	1,400	--	1%
Rocklin	445	0.5%	2	1,100	--	1%
Citrus Heights	431	0.5%	2	1,100	--	1%
North Highlands	403	0.5%	2	1,000	--	0%
Auburn	394	1.0%	4	2,000	--	1%
Elk Grove	371	1.0%	4	1,900	--	1%
Subtotal: Other Sacramento Region Employment Areas			106	52,600	--	26%
Total	17,198		405	202,200	--	100%

Note 1: US Census Longitudinal Employer-Household Dynamics Data, 2011.

Western El Dorado County Commuters to Other Sacramento Region Employment Areas

There is also potential transit demand for residents of Western El Dorado County commuting to other employment centers in the Sacramento Region. As shown in the lower portion of Table 42, the potential transit mode split for other areas are substantially lower than downtown. Some areas (such as downtown Auburn or the Sacramento State campus) have the benefit of relatively compact employment concentrations, and/or difficult commutes that tend to increase the desirability of public transit. Other areas (such as Rancho Cordova and Roseville) are characterized by employers that are spread over large areas and thus are difficult for a transit service to directly serve. Given that commuters tend to avoid transit options that require a transfer to a local route on the employment end of their commute trip, these areas have a relatively low potential mode split. Applying these factors to the number of commuters, the potential demand for these other employment sites totals an estimated 52,600 one-way passenger trips. Overall, approximately three-quarters of demand for transit commute trips outside of Western El Dorado County is to/from downtown Sacramento.

Commuters to Western El Dorado County Employment Sites

There is also a potential demand for persons commuting to employment centers in the urban areas of Western El Dorado County from residences elsewhere along the US 50 corridor. Reflecting that commuter services are not found to generate significant ridership for short travel distances (other than for employment sites with paid parking and/or significant traffic delays), this analysis focuses on residential areas more than 10 miles from employment centers, both to the west (Sacramento, Rancho Cordova, Orangevale) and to the east (Placerville, Diamond Springs, Camino). The *Longitudinal Employer Household Dynamics* data indicates the number of employees commuting from points west of the Western El Dorado County urbanized employment centers as well as those commuting from the east, as shown in Table 43. Applying a conservatively low transit mode split (reflecting the relatively easy conditions of commuting to the area by car), a potential demand for persons commuting to employment sites in the urban areas of Western El Dorado County is estimated to be 7,800 trips per year for commuters coming "up the hill" and 10,700 for commuters coming "down the hill." The preponderance of this demand is generated by employment centers in El Dorado Hills (76 percent), followed by 18 percent in Cameron Park and 6 percent in Shingle Springs.

TABLE 43: Commute Demand to Urban Area Employment Centers in El Dorado County

	Residents of Areas to the West	Residents of Areas to the East	Total
Number of Persons Commuting to Areas in Urbanized El Dorado County			
El Dorado Hills	1,548	433	1,981
Cameron Park	260	206	466
Shingle Springs	110	65	175
Daily Transit Demand (1-Way Passenger-Trips)			
El Dorado Hills	25	7	32
Cameron Park	4	3	7
Shingle Springs	2	1	3
TOTAL	31	11	42
Annual Transit Demand (1-Way Passenger-Trips)			
El Dorado Hills	6,300	1,800	8,100
Cameron Park	1,100	800	1,900
Shingle Springs	400	300	700
TOTAL	7,800	2,900	10,700

General Public Trips – Urban Core

The demand for general public trips (including employment trips) within the urban area is based upon a peer method, as follows. The transit usage rate per capita in the current El Dorado Transit service area was calculated. Next, factors were applied reflecting the relative proportion of low-income and zero vehicle households. While the overall proportion of low income households in the existing service area is 6.6 percent, this figure is 2.9 percent for El Dorado

Hills, and 6.0 percent for Cameron Park/Shingle Springs. Based on this methodology, the demand within El Dorado Hills is estimated to be 79,000 passenger-trips per year, while demand in Cameron Park/Shingle Springs is 134,000 passenger-trips per year, for a total of 213,000 passenger-trips per year.

Rural Area Demand

The demand analyses used in the "rural" area of Western El Dorado County (outside of the Sacramento urban area) are based on methodologies developed for the Transportation Research Board (TRB) of the American Academy of Scientists. The demand estimation models are presented in *Methods for Forecasting Demand and Quantifying Need for Rural Passenger Transportation* published as a web-based document in 2009 by the Transit Cooperative Research Program and authored by Vanasse Hangen Brustlin; LSC Transportation Consultants, Inc.; and Erickson Consulting, LLC. The methodology developed for this project is based on data available through the US Census (American Community Survey) and is an update of initial work on estimating demand for rural passenger transportation that was published in 1995 in TCRP Report 3.[2] The applications of the methodologies are discussed below.

Rural Program (Sponsored) Trips

In rural or small urban areas, the transit trips made by residents to and from specific social programs (such as for job training or sheltered workshops) typically comprise a large part of the total transit demand. This demand differs from other types of demand, in that clients in each program specifically generate this need for service. The TCRP B-3 methodology applies observed trip rates to estimate program demand, applied to the estimated number of clients in each program based on demographic characteristics of the area. The input data and analysis results are presented in Table 44. Based on the selected input, the forecasted demand is estimated at 479,400 one-way trips annually, with the largest demand (170,900) by senior nutrition and the next largest demand (107,500) for developmental services.

Rural Non-Program-Related Transit Demand

In addition to program demand, demand for transit services is generated by non-program travel. The TCRP methodology also provides analysis methodologies to estimate this element of demand. The TCRP analytical technique uses a "logit model" approach to the estimation of transit demand, similar to that commonly used in urban transportation models. This model incorporates an exponential equation that relates the quantity of service and the demographics of the area.

As with any other product or service, the demand for transit services is a function of the level of supply provided. To use the TCRP methodology to identify a feasible maximum demand, it is necessary to assume a high supply level, as measured in vehicle-miles of annual transit service per square mile of service area. For rural areas, a reasonable maximum level of service would be to serve every portion of the county with four round-trips of transit service daily, Monday through Friday. This equates to approximately 2,400 vehicle-miles of transit service per square

[2] The current web-based document with detailed information on the methodology can be found at http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_webdoc_49.pdf.

TABLE 44: Program Transit Demand

INPUT DATA VALUES		
Area	Square Miles	1,540
Total Population	Persons	148,614
Persons Age 3 to 4	Persons	3,005
Persons Age 16 to 59	Persons	75,367
Persons Age 16 to 64	Persons	84,552
Persons Age 16 and Above	Persons	118,023
Persons Age 60 or Over	Persons	29,661
Persons Age 75 and Above	Persons	9,545
Total Persons with a Mobility Limitation	Persons	3,115
Persons Age 16 to 64 With a Mobility Limitatic	Persons	975
Families Below Poverty Level	Families	3,496

Program Type	# of Participants	Annual Ridership (1-Way Psgr-Trips)
Developmental Services	254	107,500
Developmental Services: Case Management	29	1,100
Developmental Services: Pre-School	41	9,200
Group Home	13	7,200
Headstart	139	36,600
Job Training	422	57,800
Mental Health Services	124	43,000
Mental Health Services:	711	4,500
Nursing Home	274	3,200
Senior Nutrition	689	170,900
Sheltered Workshop	100	38,400
TOTAL		479,400

SOURCE: "TCRP Report 3: Workbook for Estimating Demand for Rural Passenger Transportation"

mile per year. The TCRP methodology for general public (non-elderly or disabled) demand estimation was found to not be applicable to the study area, as existing ridership exceeds the results of the methodology. A mode-split evaluation was therefore applied. Based upon a review of transit mode split for well-served similar areas, an estimated maximum mode split of 0.5 percent was identified. This factor was applied to the non elderly/disabled population, and multiplying by an average of 3.5 person-trips per day in rural areas to yield the transit demand.

As shown in Table 45, a total demand of 338,810 one-way passenger-trips is generated by non-program demand in rural areas. Of this, the majority (266,300 or 79 percent) is generated by the general public, while 19 percent is generated by elderly and/or disabled persons.

ADA Paratransit Demand (Both Rural and Urban)

According to the Americans with Disabilities Act of 1990, any public entity which operates a fixed route must provide paratransit or other special service to individuals with disabilities that is comparable to the level of service provided to individuals without disabilities who use the fixed route system. Paratransit service may include a separate Dial-A-Ride type service or route

TABLE 45: Rural Non-Program Demand

Western El Dorado County (Not Including Urbanized Area)

Census Tract	Area Description	Estimated Annual Passenger-Trip Demand: Elderly	Mobility Limited	Elderly + Mobility Limited	General Public	Total	Estimated Daily Transit Demand: #	Regional %
306.01	Pilot Hill / Cool	3,250	270	3,520	17,300	20,820	82	6.4%
306.02	Greenwood / Garden Valley	5,030	370	5,400	20,700	26,100	102	8.0%
306.03	North Central County	2,400	140	2,540	9,400	11,940	47	3.7%
308.01	Deer Valley / Rescue	2,810	500	3,310	12,700	16,010	63	4.9%
309.01	Coloma / Lotus Road Area	1,890	30	1,920	10,100	12,020	47	3.7%
309.02	N. Greenstone / Missouri Flat Area	4,410	310	4,720	15,500	20,220	79	6.2%
310	Northwest Placerville	3,910	760	4,670	18,300	22,970	90	7.1%
311	North Placerville	4,650	70	4,720	18,600	23,320	91	7.2%
312	South Placerville	4,180	570	4,750	16,400	21,150	83	6.5%
313.01	Smith Flat / Camino	3,790	200	3,990	8,600	12,590	49	3.9%
313.02	N. Pollock Pines / Cedar Grove	4,020	420	4,440	15,800	20,240	79	6.2%
314.02	Somerset / Mt. Aukum	2,560	430	2,990	16,900	19,890	78	6.1%
314.04	Newtown / Old Fort Jim	1,470	160	1,630	7,800	9,430	37	2.9%
314.05	Rancho Del Sol / Gold Ridge	1,380	100	1,480	7,800	9,280	36	2.9%
314.06	Fresh Pond / Pleasant Valley	4,420	380	4,800	18,200	23,000	90	7.1%
315.02	South Missouri Flat Area	5,290	560	5,850	19,200	25,050	98	7.7%
315.03	Kingsville / Nashville	2,820	190	3,010	6,600	9,610	38	3.0%
315.04	Deer Park Area	4,350	370	4,720	16,100	20,820	82	6.4%
319	Southeast County	30	0	30	200	230	1	0.1%
	Rural Study Area Total	**62,660**	**5,830**	**68,490**	**256,200**	**324,690**	**1,273**	**100.0%**

Source: LSC Transportation Consultants, Inc.

deviation service within three-quarters of a mile of the fixed route. Demand estimation techniques for ADA paratransit ridership are outlined in Transit Cooperative Research Program (TCRP) Report 119 (2007). A demand estimation tool was developed to forecast passenger trips made by ADA eligible individuals when a system operates without capacity constraints as defined by ADA regulations. A strong statistical correlation was found between the following six factors and demand for paratransit service:

- Population for the actual ADA service area, usually the area within a three-quarter mile radius of the fixed route.
- The base ADA paratransit fare.
- The proportion of applicants for ADA eligibility who are found to be “conditionally” eligible.
- Whether or not conditional trip eligibility is determined on a trip by trip basis.
- The proportion of the population below the poverty level.
- The effective on-time window policy. For example if a vehicle is considered late beginning 20 minutes after the scheduled pick up time and the passenger is expected to be ready 10 minutes early, then the “effective on-time window” is 30 minutes.

A paratransit demand tool was developed in the TCRP report using the factors listed above. This analysis applied the estimated population within three-quarter miles of a fixed route system, the

existing $2.00 ADA fare, the effective on-time window of 15 minutes, and no trip-by-trip eligibility requirements.

The model indicates that there is potential ADA paratransit demand of 133,500 annual passenger trips, if provided throughout Western El Dorado County. It should be noted that adding conditional trip screening would significantly reduce ADA demand. As ADA paratransit trips are included in the non-program, program or employee demand discussed above, ADA paratransit demand calculations are not included in the demand summary table below.

Intercity Transit Demand (Both Urban and Rural)

As El Dorado Transit provides a connection to intercity bus, rail and air services in Sacramento, another potential source of transit demand is persons using the local transit program as part of their longer intercity trip. In order to estimate demand for intercity bus service, a model was used from the report "TCRP Report 147: Toolkit for Estimating Demand for Rural Intercity Bus Services." The model considers population, connections to air passenger services, number of stops, and coordination with the intercity bus system. In Western El Dorado County, the total demand for intercity service can be calculated to equal 39,000 one-way passenger trips per year.

SUMMARY OF TRANSIT DEMAND

A summary of the results of the various demand methodologies above are presented in Table 46. As indicated, the overall demand (excluding special events such as Apple Hill®) is estimated to total 1,283,700 one-way passenger-trips per year. The largest proportion is Social Service Program trips, with 479,400 trips. Note that, as the ADA demand is also reflected in the other trip type categories, it does not add to the overall total. The relative proportions of demand generated by each category are shown in Figure 26.

TABLE 46: Transit Demand Summary for Western El Dorado County

	One-Way Passenger-Trips				
Type of Demand	Average Daily Demand	Annual Demand	Percent of Total	Existing Ridership	Percent Served
Commuter					
El Dorado Residents Commuting to Sacramento/Intercity	299	182,700	14.5%	143,900	79%
El Dorado Residents Commuting Elsewhere in Sacramento Region	106	52,600	4.2%	1,500	3%
Commuting to El Dorado Urban Area Employers	42	10,700	0.8%	2,700	25%
Urban Area	852	213,000	16.9%	21,100	10%
Rural Non-Program Elderly/Disabled	272	68,000	5.4%	50,300	74%
Rural Non-Program Other	1,025	256,200	20.3%	107,000	42%
Social Service Program	1,918	479,400	38.0%	53,700	11%
TOTAL	**4,513**	**1,262,600**	**100%**	**380,200**	**30%**
ADA Demand (Subcategory of above)	524	133,500	10.6%	27,047	20%

Note: Annual figures assume maximum level of transit service is provided. Excludes special event demand.

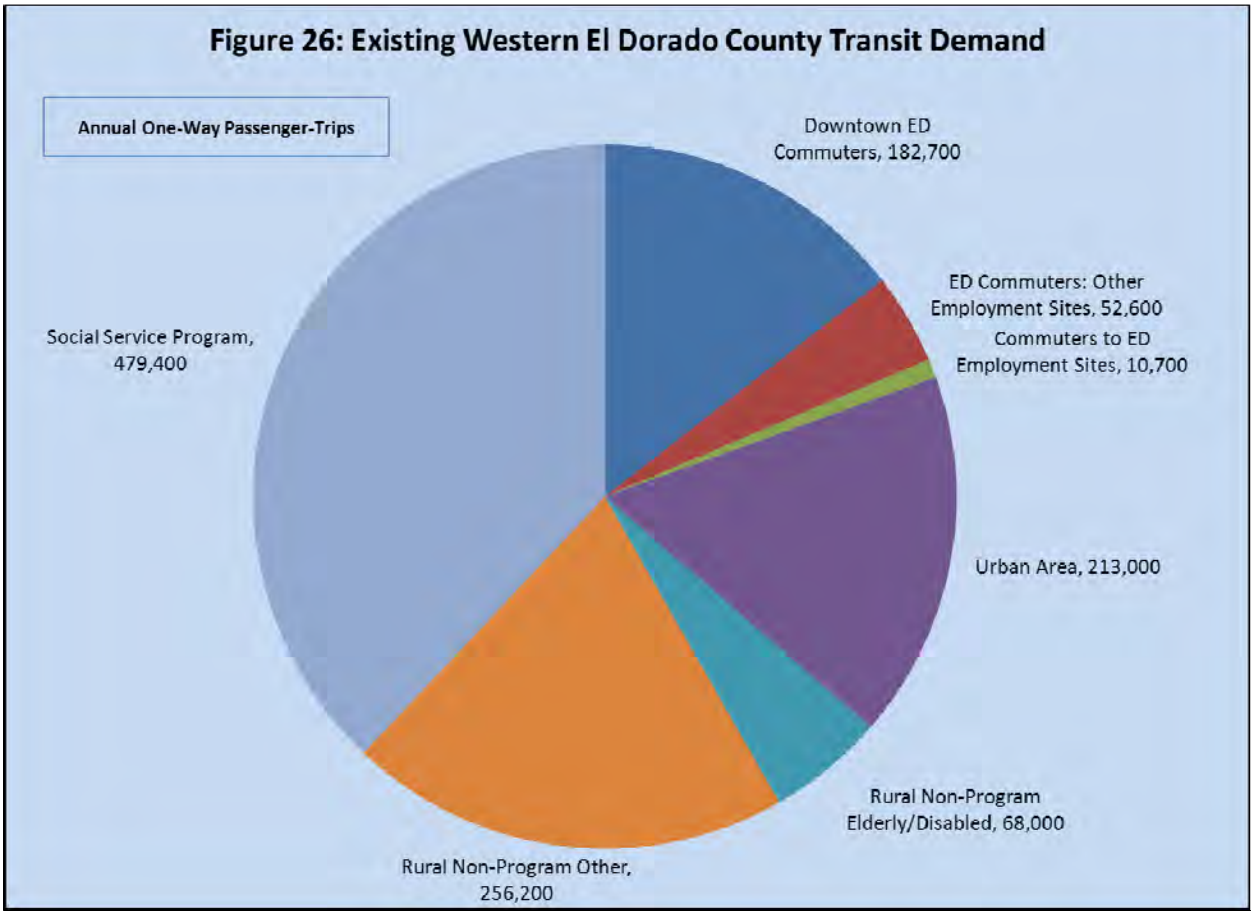


Table 46 also presents the current ridership served in each of the demand categories. These figures have been estimated based on existing ridership by route/service, and the passenger characteristics of the various routes/services identified in the recent on-board passenger surveys. These ridership and demand figures service can then be compared to identify the estimated proportion of total potential demand currently served, indicating the following:

- A high proportion (76 percent) of potential demand for Western El Dorado County residents commuting to downtown Sacramento is currently served. In comparison, the proportion of demand to other employment centers is low (3 percent). The proportion of potential demand for commuting into urban El Dorado County employment centers is between these two figures, at 25 percent.

- A relatively high proportion of the rural non-program demand is currently accommodated, equal to 69 percent of demand generated by elderly/disabled residents and 40 percent of demand generated by general public.

- The low proportion of demand met in the urban area of El Dorado County (10 percent) reflects the lack of transit service in El Dorado Hills (beyond Dial-A-Ride and commuter service) and the limited service currently provided in Cameron Park/Shingle Springs. This also impacts the low proportion of social service program trips that are served.

It should be noted that these demand estimates assume a high level of transit service, throughout Western El Dorado County. Therefore, the presence of significant proportions or absolute numbers of unmet demand does not necessarily indicate that service can be efficiently provided that will meet all demand. Particularly for areas of dispersed demand, serving all potential demand is not an effective use of resources, or can exceed available resources. Those elements of demand that can be served will be identified in upcoming tasks as part of this overall study.

FUTURE TRENDS IMPACTING TRANSIT DEMAND

Future change in transit demand will be influenced by a variety of factors, as discussed below.

Development

The economic slowdown of the past several years has created some vacancies in housing and commercial areas, and building had nearly stopped. As discussed previously in this document, however, there are a significant number of developments and specific plans currently in the planning process. An increase in commercial development could increase the need for local transportation services, and an increase in housing could translate to an increased demand for all transit markets.

Change in Total Population

The total countywide population is expected to grow at a slow but steady pace of approximately 1.4 percent each year, according to the California Department of Finance (May 2012 estimates). Much of this growth will be concentrated in El Dorado Hills, Cameron Park/Shingle Springs, and the Diamond Springs area, which will affect demand.

Change in Senior Population

The change in the senior population will also impact transit demand. By 2030, California Demographic Research Unit forecasts (adjusted to exclude the Tahoe Basin) indicate that the population of Western El Dorado County over age 64 will increase by 139 percent, while those over age 74 will increase by a full 162 percent. This will have a substantial impact on the need for transit service, particularly for ADA/paratransit service.

Fuel Costs

As fuel costs increase, the relative attractiveness of public transit rises in comparison with the private automobile. Fuel costs in the United States have been rising over the past 10 years, with fluctuations in pricing throughout each year. In general, gas prices on the West Coast have increased 129 percent (or a 7 percent average annual change) between 2000 and 2011, according to the U.S. Energy Information Administration. These rising fuel costs have resulted in declines in vehicle miles traveled and increases in public transit ridership across the United States. The Small Urban and Rural Transit Center / Upper Great Plains Transportation Institute at North Dakota State University prepared an extensive study on the relationship between gas prices and transit ridership in rural areas (Effects of Rising Gas Prices on Bus Ridership for Small Urban and Rural Transit Systems, June 2008). The study found that, not surprisingly, transit

programs operating longer routes (such as those in rural areas) tend to be more impacted by gas price changes than those associated with shorter routes. Further, based on their study period between 1999 and 2007, ridership in small urban areas (populations with fewer than 100,000 persons) experienced the highest growth in ridership as a result in increasing gas prices. Lastly, the study also suggests that trips for commuting purposes tend to be impacted more by gas prices, and that higher rates of ridership increases can be applied. Based on the historical gas price data on the West Coast, we assume that fuel prices will continue in the same trend, growing at roughly 7 percent annually. Knowing this, our study applied modest growth rates comparable to those used for similar size areas (small urban areas). For commuter demand, a 1.3 percent annual increase in ridership is assumed, which accounts for a higher potential for growth due to longer travel distances. For both general public and demand response services, a 0.8 percent annual increase in ridership was applied; the lower factor reflecting a more rural, less populated area with a greater proportion of existing transit dependent passengers.

Changing Infrastructure – How people and vehicles move around affects transit demand as well. Some infrastructure changes that might affect transit include:

- **Park-and-Ride Lots:** Reflecting current capacity issues at park-and-ride lots, expanded parking could increase the level of commuting by transit.

- **HOV Lanes and the Capital Southeast Connector:** Changes to the road infrastructure which make road travel faster can impact decisions to use transit. If the roads are more convenient, travelers may opt to drive alone rather than carpool or use transit. But what also can happen is that buses can access High Occupancy Vehicle (HOV) lanes to move much faster than individual vehicles, making transit more attractive.

- **Bike and Pedestrian Access:** El Dorado County has pleasant weather conditions much of the year, making walking and cycling viable and attractive options for mobility (although the hilly terrain limits this mode for many would-be cyclists). The increased attention to the infrastructure for bikes and pedestrians can also affect the need for transit service to complete trip ends.

FORECASTS OF FUTURE TRANSIT DEMAND

Reflecting the factors discussed above, existing demand was forecasted through 2035, as follows:

- Commuter demand to employment outside of El Dorado County (including downtown) were factored by the proportionate change in person-trip demand, as indicated in the SACSIM model data, as well as the impact of increasing fuel costs.

- Commuter demand to employment within the urban area of El Dorado County was factored by the forecast growth in employment within this area (per the County's forecasts), as well as the increasing fuel cost impact.

- The urban area demand was factored by the growth in population within the urban portion of Western El Dorado County (as reflected in the County's forecasts), the fuel cost impact, as well as the impact of an aging population.

- Rural non-program elderly/disabled demand was factored by the change in forecast population (per the County's forecasts) in the non-urban areas, by the impact of an increasingly aged population, and by the impact of fuel cost increases.

- Rural non-program general public demand was factored by the change in forecast population (per the County's forecasts) in the non-urban areas and by the impact of fuel cost increases.

- Social service demand and ADA demand were factored by the change in forecast population, and by the impact of an increasing senior population.

As presented in Table 47, overall system ridership is forecast to increase 10 percent over the short-range planning horizon (by 2018), and by 60 percent over the long-range (by 2035). As shown in Figure 27, this growth is expected to be generally consistent. By service, in the short term the largest growth is forecast in the program demand, followed by the urban area demand. Over the long term, program demand will remain the largest area of growth, followed by rural non-program general public demand. Growth in commuting demand will be relatively modest. While overall travel between Western El Dorado County and downtown Sacramento is forecast to decline, the impact of rising fuel prices will result in an overall modest increase.

TABLE 47: Forecast of Future Western El Dorado County Transit Demand

Demand Category	2013	2018	2020	2025	2030	2035	Short Term 2013-2018 Growth	Long Term 2013-2035 Growth
Total Annual Transit Demand: 1-Way Passenger-Trips								
Commuter								
El Dorado Residents Commuting to Sacramento/Intercity	182,700	185,800	187,000	189,500	191,500	193,000	3,100	10,300
El Dorado Residents Commuting Elsewhere in Sacramento Region	52,600	59,800	61,300	64,900	68,600	72,300	7,200	19,700
Commuting to El Dorado Urban Area Employers	10,700	13,100	13,700	15,000	16,400	17,800	2,400	7,100
Urban Area	213,000	238,800	245,800	267,400	290,700	312,900	25,800	99,900
Rural Non-Program Elderly/Disabled	68,000	77,400	81,400	95,400	111,200	126,200	9,400	58,200
Rural Non-Program Other	256,200	278,400	287,800	312,900	340,200	370,200	22,200	114,000
Social Service Program	479,400	527,900	548,100	621,200	700,300	768,500	48,500	289,100
TOTAL	1,262,600	1,381,200	1,425,100	1,566,300	1,718,900	1,860,900	118,600	598,300
ADA Demand (Subcategory of above)	133,500	147,000	152,600	173,000	195,000	214,000		
Percent Change from 2013								
Commuter								
El Dorado Residents Commuting to Sacramento/Intercity		1.7%	2.4%	3.7%	4.8%	5.6%		
El Dorado Residents Commuting Elsewhere in Sacramento Region		13.7%	16.5%	23.4%	30.4%	37.5%		
Commuting to El Dorado Urban Area Employers		22.4%	28.0%	40.2%	53.3%	66.4%		
Urban Area		12.1%	15.4%	25.5%	36.5%	46.9%		
Rural Non-Program Elderly/Disabled		13.8%	19.7%	40.3%	63.5%	85.6%		
Rural Non-Program Other		8.7%	12.3%	22.1%	32.8%	44.5%		
Social Service Program		10.1%	14.3%	29.6%	46.1%	60.3%		
TOTAL		9.4%	12.9%	24.1%	36.1%	47.4%		
ADA Demand		10.1%	14.3%	29.6%	46.1%	60.3%		

Source: LSC Transportation Consultants, Inc.


Figure 27: Future Trends in Transit Demand
Social Service Program
Rural Non-Program Other
Rural Non-Program Elderly/Disabled
Urban Area
Commuters to ED Employment Sites
ED Commuters: Other Employment Sites
Downtown ED Commuters
Demand: Annual One-Way Passenger-Trips
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
2013
2018
2020
2025
2030
2035

This page left intentionally blank

Chapter 5
Short-Range Service Alternatives

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. The service plan provides a basis for, capital requirements, funding strategies, as well as institutional and management strategies.

While the review of existing services in Chapter 3 applied a cost model for a previous year, for purposes of informing decision making regarding future services it is appropriate to apply a cost model based upon expected future costs. Based upon the adopted EDT 2013/14 budget, and factoring 2 percent for inflation between 2013/14 and 2014/15, the following equation applies:

Operating Cost in 2014/15 = $1.30 X Total Vehicle-Miles +
$54.79 X Total Vehicle-Hours +
$1,755,200

These cost factors will be applied to the operating characteristics (hours of service and miles of service) identified in the service alternatives to estimate the cost impacts of each alternative.

LOCAL AND RURAL SERVICES

US 50 Express Service between Placerville and Iron Point – Hourly Service on US 50 Corridor, and Hourly Service on Cameron Park Route

The current El Dorado Transit route services west of Missouri Flat Road (consisting of the Cameron Park Route operating five runs a day from the Missouri Flat Transfer Center to Cameron Park and four runs a day on the Iron Point Connector between Missouri Flat Transfer Center and Folsom) has a number of significant disadvantages, including the following:

- Three hour waits between Cameron Park buses.
- Very limited opportunities to travel between El Dorado Hills and points to the east.
- No effective service between El Dorado Hills and the portions of Cameron Park not immediately along US 50.

An alternative service plan for this corridor would be to (1) provide more consistent service along US 50 and (2) convert the Cameron Park Route to serve only Cameron Park on an hourly frequency, with transfers to the US 50 route. These two elements are discussed in greater detail below.

Convert Iron Point Connector into 50 Express Route Between Folsom and El Dorado County Government Center

The main "spine" of the corridor service would be a route along the US 50 corridor between the El Dorado County Government Center and Folsom, as shown in Figure 28. Ultimately, two buses could be operated on a two-hour-long round-trip route, providing consistent hourly service, as shown in Table 48.

This route generally is consistent with the existing Iron Point Connector Route, with the following changes:

- The number of stops in Folsom would be reduced to Iron Point Station and Folsom Lake College (scheduled) plus Kaiser Permanente on a request basis (when it serves Western El Dorado County residents). This allows the running time of the route to be reduced by using US 50 in both directions. Detailed analysis of passenger activity at the other stops showed very little ridership, of which most were trips to/from Iron Point Station.

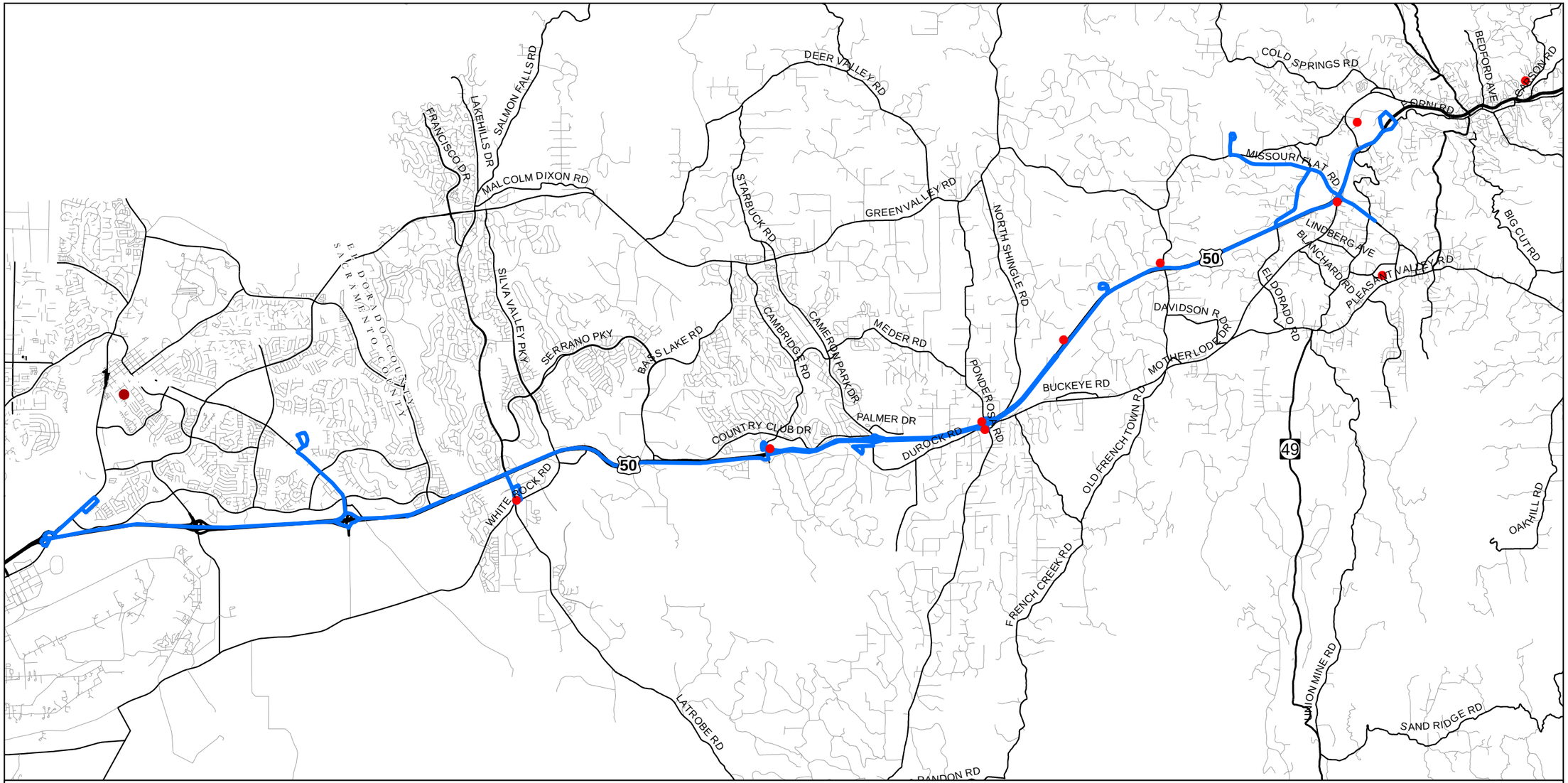
- In addition, either Iron Point Station or Folsom Lake College would be served on any one run, but not both (except for the last run of the day). This provides the running time to allow service to the El Dorado County Government Center, starting at 8:40 AM. Iron Point Station would be served on the AM and PM peak commute runs, to accommodate the existing Western El Dorado County residents accessing the light rail service at these times. From 8:57 AM to 6:09 PM (with the exception of 4:57 PM) hourly service would be provided to Folsom Lake College. Note that transfers could be made to Folsom Stage transit service at both Folsom Lake College and Iron Point Station.

- Folsom Lake College – El Dorado Campus (and adjacent Child Development Center) are typically served in one direction (westbound). (Between the Diamond Springs Route serving the campus before the top of the hour and the 50 Express Route serving the campus after the top of the hour, passengers could directly transfer to/from the Placerville and Pollock Pines Routes both to and from the campus.) For the first run of the day, the El Dorado Campus would be served eastbound, in order to meet schedule times at the Child Development Center.

- A stop in Cameron Park at Rodeo Road (near Cameron Park Place) would is added. The buses would be scheduled to serve this stop each hour at the same time, allowing the Cameron Park Route to transfer directly to the 50 Express buses in both directions.

- Several other stops (notably the Ponderosa Road Park and Ride and the Cambridge Road Park and Ride) would be served on demand only in lower demand periods (identified from existing ridership patterns). Once a Silver Valley Parkway Park-and-Ride is constructed, it should also be served with a similar schedule.

- The route is "rebranded" as the 50 Express. The existing Iron Point Connector was implemented primarily to provide a transit connection to the Sacramento RT light rail system (at the Iron Point Station). Under this plan, however, the route will serve additional purposes, specifically expanded transit access along the US 50 corridor in El Dorado Hills. The revised name better reflects the role of the service.



US 50 Express Route

Figure 28

Map Source: El Dorado County Transportation Commission
Base Data Source: El Dorado County

Map Feature Key

- Major Roads
- Minor Roads
- US 50 Express Route
- Park and Ride Lot

1 inch = 7,378 feet

This page left intentionally blank.

TABLE 48: El Dorado Transit US 50 Express Schedule

Runs Operated Under "One Bus Option" Shaded

	Bus 1	*Bus 2*	Bus 1	*Bus 2*	Bus 1	*Bus 2*	Bus 1	*Bus 2*	Bus 1	*Bus 2*	Bus 1	*Bus 2*
WESTBOUND												
Missouri Flat Transfer Center (Dep)	6:10 AM	*7:00 AM*	8:00 AM	*9:00 AM*	10:00 AM	*11:00 AM*	12:00 PM	*1:00 PM*	2:00 PM	*3:00 PM*	4:00 PM	*5:00 PM*
FLC - El Dorado Center / CDC	--	✦✦	8:09 AM	*9:09 AM*	10:09 AM	*11:09 AM*	12:09 PM	*1:09 PM*	2:09 PM	*3:09 PM*	4:09 PM	*5:09 PM*
Red Hawk Casino	✦✦	✦✦	8:18 AM	*9:18 AM*	10:18 AM	*11:18 AM*	12:18 PM	*1:18 PM*	2:18 PM	*3:18 PM*	4:18 PM	*5:18 PM*
Ponderosa Rd. Park and Ride	6:25 AM	*7:25 AM*	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	4:25 PM	*5:25 PM*
Cameron Park (Rodeo Road)	6:28 AM	*7:28 AM*	8:28 AM	*9:28 AM*	10:28 AM	*11:28 AM*	12:28 PM	*1:28 PM*	2:28 PM	*3:28 PM*	4:28 PM	*5:28 PM*
Cambridge Rd. Park and Ride	6:32 AM	*7:32 AM*	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	4:32 PM	*5:32 PM*
El Dorado Hills Park and Ride	6:42 AM	*7:42 AM*	8:42 AM	*9:42 AM*	10:42 AM	*11:42 AM*	12:42 PM	*1:42 PM*	2:42 PM	*3:42 PM*	4:42 PM	*5:42 PM*
FLC – Folsom Campus (Arr)	--	--	8:54 AM	*9:54 AM*	10:54 AM	*11:54 AM*	12:54 PM	*1:54 PM*	2:54 PM	*3:54 PM*	--	--
Iron Point Light Rail Station (Arr)	6:55 AM	*7:55 AM*	--	--	--	--	--	--	--	--	4:55 PM	*5:55 PM*
EASTBOUND												
Iron Point Light Rail Station (Dep)	6:57 AM	*7:57 AM*	--	--	--	--	--	--	--	--	4:57 PM	*5:57 PM*
Kaiser Permanente	--	--	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦
FLC – Folsom Campus	--	--	8:57 AM	*9:57 AM*	10:57 AM	*11:57 AM*	12:57 PM	*1:57 PM*	2:57 PM	*3:57 PM*	--	*6:09 PM*
El Dorado Hills Park and Ride	7:09 AM	*8:09 AM*	9:09 AM	*10:09 AM*	11:09 AM	*12:09 PM*	1:09 PM	*2:09 PM*	3:09 PM	*4:09 PM*	5:09 PM	*6:21 PM*
Cambridge Rd. Park and Ride	7:19 AM	*8:19 AM*	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	*4:19 PM*	5:19 PM	*6:31 PM*
Cameron Park (Rodeo Road)	7:23 AM	*8:23 AM*	9:23 AM	*10:23 AM*	11:23 AM	*12:23 PM*	1:23 PM	*2:23 PM*	3:23 PM	*4:23 PM*	5:23 PM	*6:35 PM*
Ponderosa Rd. Park and Ride	7:26 AM	*8:26 AM*	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	*4:26 PM*	5:26 PM	✦✦
Red Hawk Casino	✦✦	✦✦	9:33 AM	*10:33 AM*	11:33 AM	*12:33 PM*	1:33 PM	*2:33 PM*	✦✦	✦✦	✦✦	✦✦
FLC - El Dorado Center / CDC	7:39 AM	--	--	--	--	--	--	--	--	--	--	--
Forni Road and Lo-Hi Way	--	*8:40 AM*	9:40 AM	*10:40 AM*	11:40 AM	*12:40 PM*	1:40 PM	*2:40 PM*	3:40 PM	*4:40 PM*	5:40 PM	✦✦
Placerville Government Center (Library)	--	*8:43 AM*	9:43 AM	*10:43 AM*	11:43 AM	*12:43 PM*	1:43 PM	*2:43 PM*	3:43 PM	*4:43 PM*	5:43 PM	✦✦
Missouri Flat Transfer Center (Arr)	7:48 AM	*8:51 AM*	9:51 AM	*10:51 AM*	11:51 AM	*12:51 PM*	1:51 PM	*2:51 PM*	3:51 PM	*4:51 PM*	5:51 PM	✦✦

✦✦ *Request Only* -- No Service

- The buses would serve the Missouri Flat Transfer Center at the top of the hour (including a minimum 9 minute scheduled driver layover). This timing allows direct transfers between the 50 Express and the Placerville Routes in both directions, from the Diamond Springs Route arriving from Diamond Springs, and the Diamond Springs Route departing to Folsom Lake College – El Dorado Center.

As an aside, another option that was considered was to include the Pollock Pines Route into the overall plan, providing a single route and therefore a "single seat" service between Pollock Pines and Folsom. While this would avoid the need for persons traveling between points east of Placerville and west of Missouri Flat to transfer, there are several disadvantages with this option:

- The current service schedule of the Placerville Routes and Pollock Pine Routes provides convenient service roughly every half hour between key stops in the Placerville areas (those stops served by the Pollock Pines Route). A single long route would either require the Pollock Pines Route to serve Missouri Flat at the same time as the Placerville Routes (near the top of the hour), or shift the 50 Express schedule by a half-hour. This latter option would then require half-hour waits for transfers to/from the Placerville Routes. As the Placerville Routes serve more stops in the Placerville area than does the Pollock Pines Route, it is more important to provide convenient transfers between the 50 Express Route and the Placerville Routes.

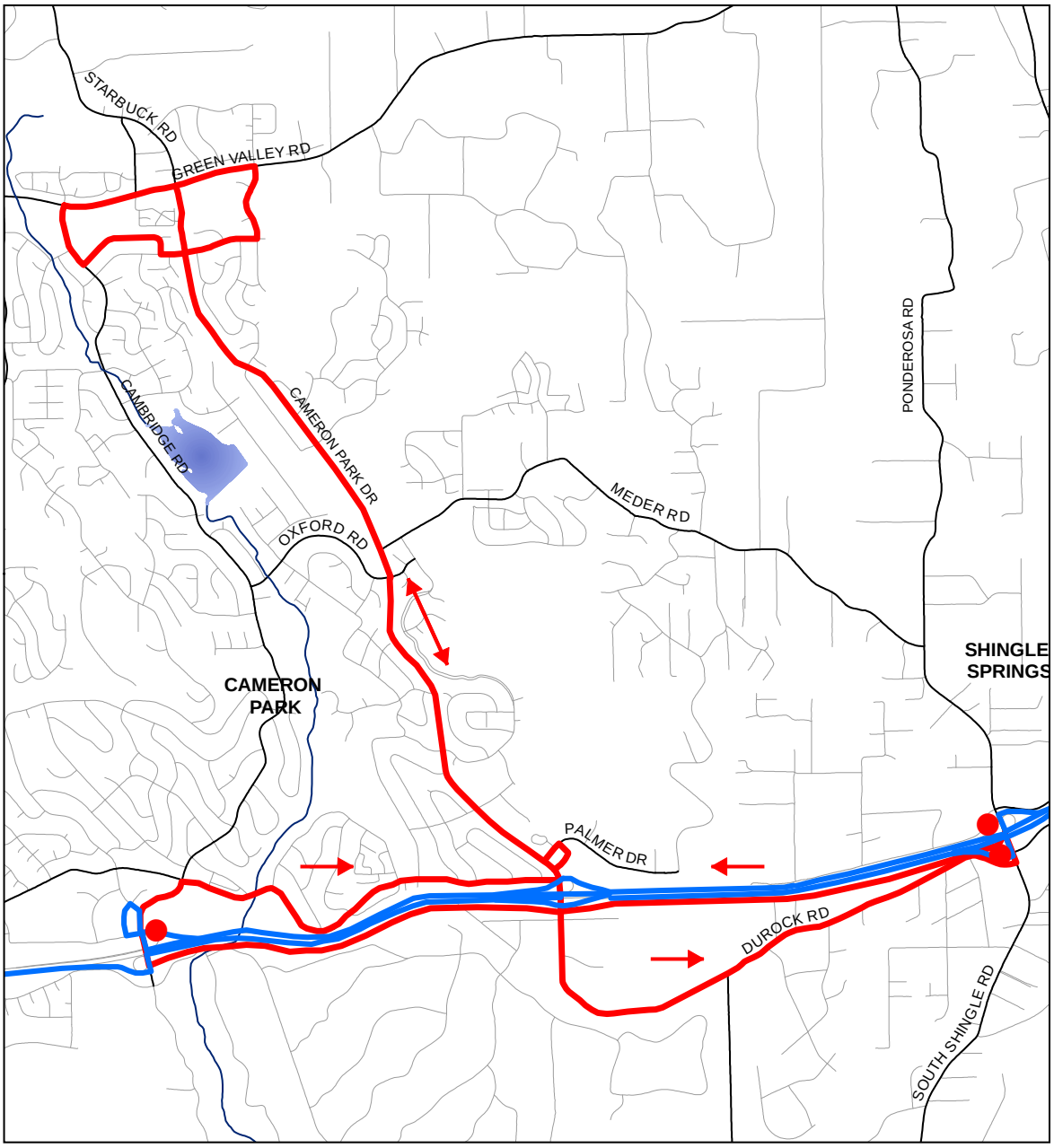
- Operating a single Folsom – Pollock Pines Route would tie on-time performance on one end of the route to events on the other end. Snow-related delays in Pollock Pines, for example, would result in delays to service in El Dorado Hills, while traffic delays in Folsom would affect on-time performance in Camino. As the type of transit vehicle used on one end of this corridor could well differ from that appropriate at the other end, a single long route would also impose operational issues.

Another option that was considered would be to eliminate service to Iron Point Station, instead making Folsom Lake College (Folsom Campus) the western end of the 50 Express route. Under this option, however, existing ridership would be eliminated to/from the light rail. This is 34 percent of existing Iron Point Connector ridership, of which a majority is Western El Dorado County residents (largely those originating in El Dorado Hills and Cameron Park) who travel to the light rail station in the morning, returning in the afternoon. Overall, this option would serve approximately 1,800 fewer rides per year than directly serving the Light Rail station.

Revise Cameron Park Route to Enhance Local Service

The existing Cameron Park Route currently serves Cameron Park as well as connecting to Missouri Flat via the Red Hawk Casino and Folsom Lake College – El Dorado Center, on a roughly two-hour route, operated four times a day. This would be converted to an hourly route within the Cameron Park area only, as shown in Figure 29. Direct transfers would be provided to/from the 50 Express Route buses at Rodeo Road, near Cameron Park Center.

As shown in Table 49, the schedule would allow layover time at Rodeo Road to provide direct connections to and from the 50 Express buses in both directions.



Potential Cameron Park Route

Figure 29

Map Source: El Dorado County Transportation Commission
Base Data Source: El Dorado County

Map Feature Key

- Major Roads
- Minor Roads
- US 50 Express Route
- New Cameron Park Route
- Direction of Travel
- Park and Ride Lot

1 inch = 2,608 feet

TABLE 49: Revised Cameron Park Schedule Under US 50 Express Alternative

Stop													
Safeway (Rodeo Road) (Dep)		6:30 AM	7:30 AM	8:30 AM	9:30 AM	10:30 AM	11:30 AM	12:30 PM	1:30 PM	2:30 PM	3:30 PM	4:30 PM	5:30 PM
Bel Air (Goldorado Center)		6:36 AM	7:36 AM	8:36 AM	9:36 AM	10:36 AM	11:36 AM	12:36 PM	1:36 PM	2:36 PM	3:36 PM	4:36 PM	5:36 PM
Marshall Medical, Cameron Park		✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦
La Crescenta Dr. and Green Valley Rd.		6:43 AM	7:43 AM	8:43 AM	9:43 AM	10:43 AM	11:43 AM	12:43 PM	1:43 PM	2:43 PM	3:43 PM	4:43 PM	5:43 PM
Cimmarron Rd. and La Canada		6:46 AM	7:46 AM	8:46 AM	9:46 AM	10:46 AM	11:46 AM	12:46 PM	1:46 PM	2:46 PM	3:46 PM	4:46 PM	5:46 PM
Cambridge Rd. and Green Valley Rd.		6:48 AM	7:48 AM	8:48 AM	9:48 AM	10:48 AM	11:48 AM	12:48 PM	1:48 PM	2:48 PM	3:48 PM	4:48 PM	5:48 PM
Cameron Park Dr. and Green Valley Rd.		6:50 AM	7:50 AM	8:50 AM	9:50 AM	10:50 AM	11:50 AM	12:50 PM	1:50 PM	2:50 PM	3:50 PM	4:50 PM	5:50 PM
Cameron Park Dr. and Meder Rd. (Airpark Center)		6:52 AM	7:52 AM	8:52 AM	9:52 AM	10:52 AM	11:52 AM	12:52 PM	1:52 PM	2:52 PM	3:52 PM	4:52 PM	✦✦
Bel Air (Goldorado Center)		6:55 AM	7:55 AM	8:55 AM	9:55 AM	10:55 AM	11:55 AM	12:55 PM	1:55 PM	2:55 PM	3:55 PM	4:55 PM	✦✦
Marshall Medical		✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦
Cameron Park Dr. and Robin Lane (CPP)		6:58 AM	7:58 AM	8:58 AM	9:58 AM	10:58 AM	11:58 AM	12:58 PM	1:58 PM	2:58 PM	3:58 PM	4:58 PM	✦✦
Durock Road/Product Dr.		7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	✦✦
Market Street		✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦
Durock Center		7:02 AM	8:02 AM	9:02 AM	10:02 AM	11:02 AM	12:02 PM	1:02 PM	2:02 PM	3:02 PM	4:02 PM	5:02 PM	✦✦
Mother Lode Dr. and South Shingle Rd.		7:03 AM	8:03 AM	9:03 AM	10:03 AM	11:03 AM	12:03 PM	1:03 PM	2:03 PM	3:03 PM	4:03 PM	5:03 PM	✦✦
Ponderosa Rd. and South Shingle Rd.		✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦
Cambridge Rd. Park and Ride		7:08 AM	8:08 AM	9:08 AM	10:08 AM	11:08 AM	12:08 PM	1:08 PM	2:08 PM	3:08 PM	4:08 PM	5:08 PM	--
Cameron Park Library/Community Center		✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	--
Country Club Dr. and Cambridge Rd.		7:10 AM	8:10 AM	9:10 AM	10:10 AM	11:10 AM	12:10 PM	1:10 PM	2:10 PM	3:10 PM	4:10 PM	5:10 PM	--
Country Club Dr. and Garden Circle		✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	✦✦	--
Safeway (Rodeo Road) (Arr)		7:18 AM	8:18 AM	9:18 AM	10:18 AM	11:18 AM	12:18 PM	1:18 PM	2:18 PM	3:18 PM	4:18 PM	5:18 PM	--
US 50 Express Westbound at Rodeo Road	*6:28 AM*	*7:28 AM*	*8:28 AM*	*9:28 AM*	*10:28 AM*	*11:28 AM*	*12:28 PM*	*1:28 PM*	*2:28 PM*	*3:28 PM*	*4:28 PM*	*5:28 PM*	--
US 50 Express Eastbound at Rodeo Road	--	*7:23 AM*	*8:23 AM*	*9:23 AM*	*10:23 AM*	*11:23 AM*	*12:23 PM*	*1:23 PM*	*2:23 PM*	*3:23 PM*	*4:23 PM*	*5:23 PM*	*6:35 PM*

✦✦ Request Only -- No Service

As shown in Figure 29, departing this transfer point the bus would traverse the following route:

- Service northward along Cameron Park Drive, serving a loop at the north end consisting of Green Valley Road, La Crescenta Drive, La Canada Drive, Cimmarron Road and Cambridge Road, returning along Cameron Park Drive. Golderado Center (scheduled) and Marshall Medical (on request) would be served in both directions.

- After serving a stop at Cameron Park Center southbound on Cameron Park Drive, the bus would travel east on Durock Road, serving scheduled stops as well as a request stop at Market Street. Existing stops at the Durock Center and on Mother Lode Drive would be served, with Ponderosa Road Park and Ride served on request.

- The bus would then access US 50 eastbound and proceed directly to the Cambridge Road Park and Ride[3], and then would serve the stops eastbound along Country Club Drive before returning to the Rodeo Road transfer point.

Service would be provided from 6:30 AM until approximately 6:00 PM. With a layover/driver break at Rodeo Road from 18 after the hour to 30 after the hour, this schedule allows direct transfers to the 50 Express buses in both the eastbound direction (23 after) and westbound direction (28 after).

Table 50 presents the analysis of ridership and financial impacts of this alternative, both for an option with hourly service along US 50 and a lesser option for service every two hours along US 50. Note that ridership estimates were adjusted to avoid "double counting" existing Cameron Park Route riders that would need to transfer (thereby resulting in additional boardings for a trip currently requiring only one boarding). These figures are compared against the "base case" of existing Cameron Park and Iron Point Connector services, to identify the net change. As shown, with hourly US 50 Express service, the overall alternative would increase ridership by 32,100 passenger-trips per year, would increase operating costs by $471,600 per year (in FY 2014/15 dollars), and would increase subsidy by $397,500 per year. If service on the US 50 Express Route is limited to one bus operating every two hours, ridership would increase by 16,400 per year. While the number of peak buses in operation would not increase, annual costs would be increased by $187,100 due to the increased frequency of service, and the annual required subsidy would be increased by $146,000.

El Dorado Hills Deviated Fixed-Route

Under this alternative, a fixed route with deviations would operate within El Dorado Hills, from roughly 7:00 AM to 6:00 PM on weekdays. A single bus would operate along a defined route and schedule, with adequate time to also serve individual ride requests to specific locations (for all persons) within three-fourths of a mile of the designated route. This semi-fixed route strategy would avoid the need to provide an additional complementary paratransit van service except during peak hours (as discussed below).

[3] As the Cameron Park bus will not be at this stop at the same time as the 50 Express bus, the limited bus capacity of this stop should not be an issue.

TABLE 50: US 50 Express Service Alternatives

Alternative	Operating Characteristics: Vehicles Required [1]	Total Annual: Vehicle Miles	Total Annual: Vehicle Hours	Operating Cost[3]	Ridership (One-Way Trips): Daily	Ridership (One-Way Trips): Annual	Annual: Farebox Revenue	Annual: Subsidy Required
Status Quo								
Cameron Park Route	*1*	*54,883*	*2,397*	*$202,700*	*111*	*27,600*	*$29,700*	*$173,000*
Iron Point Connector	*1*	*62,766*	*2,232*	*$203,900*	*38*	*9,300*	*$21,600*	*$182,300*
Total	*2*	*117,649*	*4,629*	*$406,600*	*149*	*36,900*	*$51,300*	*$355,300*
US 50 Express Every Hour								
Cameron Park Route	1	67,421	*3,298*	$309,100 (1)	203	50,400 (2)	$54,400 (3)	$254,700
US 59 Express	2	182,746	*6,051*	$569,100	201	49,800 (2)	$71,000 (3)	$498,100
Total (Unlinked Trips)	3	250,167	9,350	$878,200	404	100,200	$125,400	$752,800
		Adjusting for Transfers			-126	-31,200		
Total Linked Trips						69,000		
Change from Existing	1	*132,518*	*4,720*	*$471,600*		*32,100*	*$74,100*	*$397,500*
US 50 Express Every 2 Hours								
Cameron Park Route	1	67,421	*3,298*	$309,100 (1)	165	41,000 (2)	$44,250 (3)	$264,850
US 50 Express	1	91,373	*3,026*	$284,600	138	34,100 (2)	$48,150 (3)	$236,450
Total (Unlinked Trips)	2	158,794	6,324	$593,700	303	75,100	$92,400	$501,300
		Adjusting for Transfers			-88	-21,800		
Total Linked Trips					215	53,300		
Change from Existing	0	*41,146*	*1,695*	*$187,100*	66	*16,400*	*$41,100*	*$146,000*

Note1: Includes additional deadhead miles and hours for travel between Diamond Springs and Cameron Park.

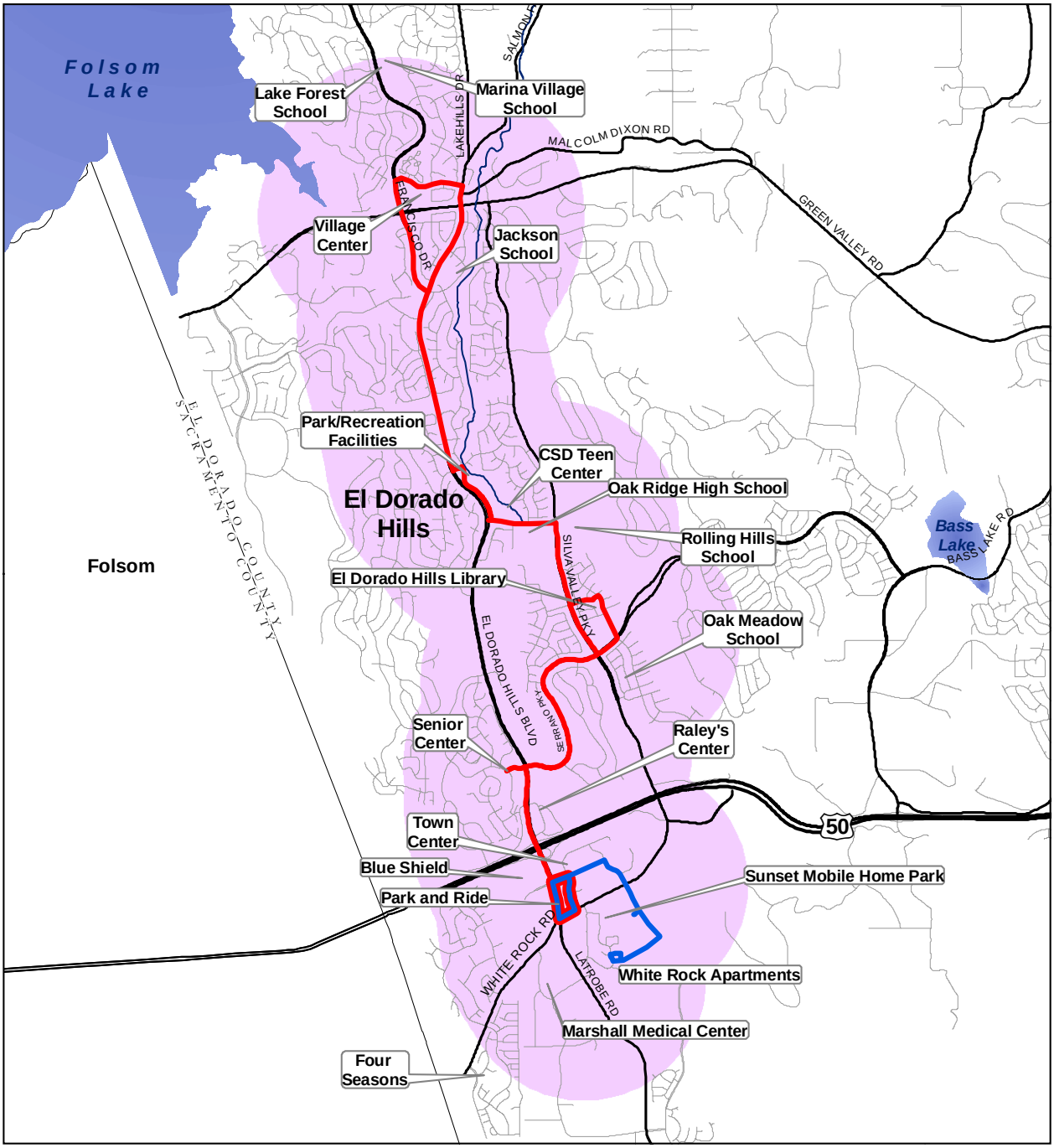
Note 2: Including transferring passengers in each.

Note 3: Allocating half of passenger revenue generated by transferring passengers to each route.

Figure 30 presents a potential route, and shows the area that would be included within three-fourths of a mile of the route. One bus would be used to provide hourly service on the following individual routes, alternating between the route segments:

- **North Route** (Red): Departing the El Dorado Hills Park-and-Ride, the El Dorado Hills Red Route would travel north along El Dorado Hills Boulevard, directly serving the Raley's Center. The route would also divert off of El Dorado Hills Boulevard on Lassen Lane to service the Senior Center, then travel via Serrano Boulevard to Silva Valley Parkway to serve the library. From Silva Valley, the route would travel west on Harvard Way to serve Oak Ridge High school, then turn onto Hawker Place just before El Dorado Hills Boulevard to serve the Teen Center and other recreational facilities. The route would return to El Dorado Hills Boulevard at St. Andrews Drive. The route would turn left on Francisco Drive, right onto Village Center Drive, and right onto Salmon Falls Road before returning southbound along the same route. With a left turn onto Town Center Boulevard and a right turn on Post Street, the route segment will terminate at the park-and-ride. Not including deviations, this route segment would require roughly 29 minutes to complete.

- **South Route** (Blue): The southern portion of the route would consist of a smaller loop serving the Town Center and the multifamily housing area along Valley View Parkway, and would be in walking proximity to the Sunset Mobile Home Park. From the park-and-ride, the route would turn right from Post Street onto White Rock Road, right on Latrobe, and right on Town Center Boulevard. The route would stay on Town Center to the theater and turn right on Vine Street, crossing over to Valley View Parkway to serve housing south of White Rock Boulevard, turning around in the White Rock Apartment complex. The route would return via Valley View Parkway and Vine Street to Town Center Boulevard to Post Street. This route segment would require roughly nine minutes to complete.



Potential Route Deviation Service

Figure 30

Map Source: El Dorado County Transportation Commission
Base Data Source: El Dorado County

Map Feature Key

- Major Roads
- Minor Roads
- North Route
- South Route
- Route Deviation Service Area (Within 3/4 Mile of Route)

1 inch = 4,196 feet

Including dwell time (time spent boarding and deboarding passengers at stops), this route would take approximately 40 minutes to complete, leaving up to 20 minutes to deviate and to provide hourly breaks for the driver. The final route design would require more detailed evaluation of bus stop and routing opportunities on a site-by-site basis, including discussions with public agencies and adjacent property owners. For instance, the limited public street network may require the use of private driveways to access some specific stops, which would be dependent on discussions with private landowners.

Like other existing El Dorado Transit deviated fixed-routes, service would also be available on demand to any location within a three-fourths of a mile distance of the routes. As shown in Figure 30, this service area includes many of the key activity centers in El Dorado Hills, including the Sunset Mobile Home Park, the northern portion of the El Dorado Hills Business Park (including the Marshall Medical Clinic), El Dorado Hills Library, and a number of schools including Oak Ridge High School and Rolling Hills Middle School. This route should be scheduled to provide direct transfers to and from the Iron Point Connector (IPC) at the El Dorado Hills Park-and-Ride. Based on the current IPC service times at 39 minutes past the hour westbound and 24 minutes past the hour eastbound, an example schedule is shown in Table 51.

TABLE 51: Sample Schedule for El Dorado Hills Deviated Fixed Route Service

	Minutes After the Hour	
Route and Stops	**Departure**	**Arrival**
North Route Segment: Red Route		
El Dorado Hills Park-and-Ride	:41	
EDH Community Service District Northbound	:48	
Village Center Drive	:53	
EDH Community Service District Southbound	:59	
El Dorado Hills Park-and-Ride		:05
South Route Segment: Blue Route		
El Dorado Hills Park-and-Ride	:15	
Town Center Theater	:18	
White Rock Apartments	:21	
El Dorado Hills Park-and-Ride		:26

Source: LSC Transportation Consultants, Inc.

After operating this service for six months, it would be appropriate to evaluate the deviation requests and determine if any of the often-requested stops should become part of the route or if they should become “on demand” stops, which means they would be on the schedule to be served, but would only be served upon request. To make a request, passengers would either call in advance to request a pick-up, or let the driver of the bus know they wish to stop there, or they could have a standing reservation.

In assessing the ridership potential for this alternative, it is important to consider the proportion of possible trips that is within a reasonable walk distance of the stops. For a fixed route in a lower density area, a walk distance of one-half mile can be used as the maximum that potential passenger would be willing to walk. For a transit route to serve a potential passenger's trip,

It is unlikely that this service would have adequate time to deviate for all ADA-eligible trips within three-fourths of a mile of the routes. Although El Dorado Transit currently offers dial-a-ride service to El Dorado Hills residents, changes would be required to make it complementary to the Deviated Fixed Route service, as follows:

1. Reservations would need to be available the day before service is requested. Therefore, if an ADA-eligible person wished to use the service on Monday, they would need to be able to make a reservation on Sunday. El Dorado Transit currently has phone staff available for making such reservations.

2. As ADA-eligible passengers could not be turned down due to a lack of capacity, all requests for complementary service would need to be honored (within an hour of the desired time, during the same hours as the deviated fixed route service and within three fourths of a mile of any stop).

3. The fares for ADA-eligible passengers cannot be greater than double the amount of the general passenger fares. The dial-a-ride fares for ADA-eligible passengers would therefore be limited to $3.00 per trip, for example, if the local deviated fixed route service fares were $1.50 (which would be in line with other local services).

The fare on this service would be comparable to other local fixed route fares in Western El Dorado County: $1.50 for general public riders and $0.75 for elderly, disabled or K-12 students. ADA complementary fares would be $3.00 per one-way trip. General public (non-ADA) fares for deviation requests would be $5.00 per one-way trip.

Based on the reduced fare of dial-a-ride service, ridership would increase from 1,350 to an estimated 2,000. Furthermore, it is reasonable to expect that establishing a scheduled local service in El Dorado Hills would increase the overall awareness of public transit and thus the demand for curb-to-curb service. It is assumed for purposes of this study that ADA requests would increase by 33 percent over current levels, bringing the new level of curb-to-curb ridership to an estimated 2,700 trips annually. In total, this is equivalent to approximately eight additional trips per day, with approximately four requests in peak hours. The deviated fixed route would be able to accommodate the majority of these trips, but it is estimated an additional four hours of dial-a-ride service would be needed on weekdays to complement the deviated fixed route service.

Ridership on the deviated fixed route service can best be estimated by looking at hourly ridership on other El Dorado Transit services. Cameron Park most closely resembles the El Dorado Hills community. The Cameron Park route carries 12.9 passengers per hour, which is among the higher ridership efficiency. However, the ridership on this route is heavily boosted by charter school students and college students (including a large number who drop their children at the Folsom Lake College child care center). Excluding this ridership, and considering the

relative potential transit demand (as discussed in Chapter 4), it is estimated that this alternative would generate a ridership of 4.6 passengers per hour of service, or 12,700 annually.

Applying the cost model, the deviated fixed route service is estimated to have an annual operating cost of $254,500. As indicated in Table 52, this would result in $13,300 in fare revenue (at an average of $1.10 per passenger trip based on an estimated 60 percent discounted fares and 40 percent full fares) which would reduce the subsidy for the service to $241,200. The increased paratransit service would incur operating costs of $70,400 per year, generating additional farebox revenue of $2,700. Combined, the overall operating cost of this alternative would be $324,900, with an annual subsidy of $308,900.

El Dorado Hills Wednesday Activity Bus

Under this option, an additional demand-response activity bus would be made available in the El Dorado Hills area, one day a week. This additional service would be available from 8 AM until 4 PM, on Wednesdays only, and would be open to all passengers. Reservations would be accepted no more than 14 days in advance, and no less than two days in advance (closing at 5:00 PM on Monday). Similar to the Grizzly Flat Route, service would only be operated if a minimum of five requests are made in advance, though additional rides could be accommodated on a time-available basis on the day of service. While operating on a demand-response basis, this service would focus on carrying passengers between their homes and key activity centers, such as Town Center (including the park-and-ride, for transfers to other routes), Village Center, the Senior Center, Recreation Center and Library. Dispatchers would strive to group trip reservations to these key centers.

Including deadhead travel from Diamond Springs, this service would cost approximately $33,200 per year to operate. Fares would be identical to Zone A dial-a-ride fares, at $4.00 for the general public and $2.00 for Seniors, persons with disabilities, and Medicare cardholders. While this service would not accommodate daily travelers (such as commuters), it would enhance mobility options for persons that need access to flexible shopping, medical, or recreation destinations. Based on the demand analysis presented in this document and public input, a minimum of 20 passenger-trips per day is estimated. This assumes good awareness of the service generated by outreach through social service agencies and marketing through local newsletters and papers. Generating $2,500 in annual fares, subsidy requirements for this alternative would equal $30,700.

Increased Frequency on Existing Cameron Park Route

Under this alternative, three additional daily runs would be operated by an additional bus on the Cameron Park Route, bringing the total daily number of runs to eight. To provide transfers with other local routes at the top of the hour, these additional runs would depart the Missouri Flat Transfer Center at 9:00 AM, 12:00 Noon, and 4:00 PM, returning two hours later.

As shown in Table 52, this option would increase annual operating costs by $181,000 per year. Ridership would be increased by an estimate 10,400 annual one-way passenger-trips, generating $12,800 per year in increased passenger fares. Total annual subsidy would be increased by $168,200.

TABLE 52: EDCTA Local Route Service Alternatives

FY 2014-2015 Ridership and Cost Analysis

Alternative	Operating Characteristics: Vehicles Required [1]	Total Daily Veh Miles	Total Veh Hours	Operating Days2	Total Annual Vehicle Miles	Total Annual Vehicle Hours	Operating Cost[3]	Ridership Impact (One-Way Trips): Daily	Ridership Impact (One-Way Trips): Annual	Annual: Farebox Revenue	Annual: Subsidy Required
Status Quo--El Dorado Transit Services											
Local Route Service	7	–	–	–	273,707	15,657	$1,213,600	–	171,576	$190,400	$1,023,200
Rural Routes	1				2,353	82	$7,600		250	$1,200	$6,400
Dial-A-Ride Service	4	–	–	–	246,994	11,921	$974,200	–	26,488	$70,800	$903,400
Sacramento Commuter Service	10	–	–	–	288,247	9,102	$873,400	–	134,103	$758,200	$115,200
Iron Point Connector	1				54,519	1,946	$177,500		9,768	$21,200	$156,300
Social Services	6	–	–	–	118,564	5,106	$433,900	–	33,804	$460,400	-$26,500
Sac Med	1				16,618	564	$52,500		590	$4,900	$47,600
Special Event Services	–				8,069	591	$42,900		37,725	$6,600	$42,900
Fixed Costs	–	–	–	–	–	–	$1,755,200	–	–	–	–
Total	30	–	–	–	1,009,071	44,969	$5,530,800	–	414,304	$1,513,700	$4,017,100
Local Route Alternatives											
El Dorado Hills Deviated Fixed Route Service											
Deviated Fixed Route	1	262	13.0	250	58,800	3,250	$254,500	51	12,700	$13,300	$241,200
Complementary Dial-A-Ride	1	--	13.0	250	12,000	1,000	$70,400	4	900	$2,700	$67,700
Total	*2*				*70,800*	*4,250*	*$324,900*	*55*	*13,600*	*$16,000*	*$308,900*
El Dorado Hills Wednesday Activity Bus	0				8,000	416	$33,200	20	1,040	$2,500	$30,700
Improve Cameron Park Route to 90 Minute Frequency	1	23	5.83	250	48,000	2,098	$177,300	42	10,400	$12,800	$164,500
Extend Evening Service By One Hour											
Placerville	0	26	2	250	6,600	500	$36,000	17	4,300	$4,400	$31,600
Diamond Springs	0	16	1	250	4,000	250	$18,900	13	3,300	$3,000	$15,900
Pollock Pines	0	41	2	250	10,300	500	$40,800	23	5,800	$7,300	$33,500
Cameron Park	1	38	2.33	250	9,500	583	$44,300	9	2,200	$2,700	$41,600
Complementary Dial-A-Ride	0	12	1.0	250	3,000	250	$17,600	2	900	$2,400	$15,200
Total	1				33,400	2,083	$157,600		16,500	$19,800	$137,800
Extend Evening Service By Three Hours											
Placerville	0	79	6	250	19,700	1,500	$107,800	32	7,900	$8,200	$99,600
Diamond Springs	0	48	3	250	11,900	750	$56,600	20	5,000	$4,500	$52,100
Pollock Pines	0	123	6	250	30,800	1,500	$122,200	33	8,300	$10,400	$111,800
Cameron Park	0	114	2.33	250	28,500	583	$69,000	14	3,600	$4,400	$64,600
Complementary Dial-A-Ride	0	36	3.0	250	9,000	750	$52,800	7	2,700	$7,200	$45,600
Total	0				99,900	5,083	$408,400		27,500	$34,700	$373,700
Start Placerville and Diamond Springs 1 Hour Earlier											
Placerville	0	26	2	250	6,600	500	$36,000	9	2,100	$2,200	$33,800
Diamond Springs	0	16	1	250	4,000	250	$18,900	8	2,000	$1,800	$17,100
Complementary Dial-A-Ride	0	369	3.0	250	2,000	167	$11,700	1	600	$800	$10,900
Total					12,600	917	$66,600		4,700	$4,800	$61,800
Extend Saturday Express Hours to 8:00 AM -- 5:00 PM											
Peak Direction Only	0	80	4	54	4,300	216	$17,400	33	1,800	$2,200	$15,200
Both Directions	0	120	6	54	6,500	324	$26,200	39	2,100	$2,500	$23,700
Saturday Service on Diamond Springs Route	0	127	8	54	6,900	432	$32,600	53	2,900	$2,600	$30,000
Make All Local Routes Fixed, With Complementary Paratransit	2			250	64,200	3,100	$253,300	19	4,800	$9,600	$243,700

Note 1: Excluding spares, which can only be calculated for the system as a whole.

Note 2: Assumes 250 weekdays and 51 Saturdays of service.

Source: LSC Transportation Consultants, Inc.

Reduce Running Times on Placerville Route

A significant problem with the existing Placerville Route (in either direction) is the on-time performance. As an example, a review of RouteMatch™ data for a two-week period in January 2013 indicated that 41 percent of eastbound runs were behind schedule, and 46 percent of westbound runs.

A key factor in on-time performance is the time required to serve the many "request only" stops. These stops have been added to the schedule over the years to provide service to specific locations that generate ridership on an infrequent basis. At present there are a total of 17 request-only stops in the eastbound direction, and 13 in the eastbound direction. On average 2.0 deviations are served on each eastbound run, and 1.3 on each westbound run. However, specific runs (particularly in the middle of the day) have an average of up to 2.9 deviations per run on average, and runs with up to six deviations have been required. Given the time needed to serve deviations, and the limited "layover" time at the end of each run, falling behind on one run often leads to a late departure on the next. It is clear that the number of deviations need to be reduced if the current schedule and routing of the Placerville Route are to provide a good quality of service.

The recent *El Dorado Hills Needs Assessment and Highway 50 Corridor Operations* Plan included a detailed evaluation of the relative effectiveness of serving each deviation stop. This analysis indicated that the following changes to the Placerville East and Placerville West routes would substantially improve the dependability of the routes:

- Eliminate request stop service on the Placerville Route to Broadway/Point View Drive and Camellia Lane, and instead serve Broadway/Point View Drive and Camellia Lane on request on the Pollock Pines Route. While this will reduce service availability to these stops to hourly, it is no longer possible to include these stops on the Placerville Route given overall running time constraints.

- Eliminate the request stop at Phoenix Center (Mallard Lane)

- Make Coloma Court a request stop from 10:00 AM to 2:00 PM. This will save substantial time on runs with a deviation request at the El Dorado High School but not a request at Coloma Court. Often during this mid-day period there are no passengers boarding at Coloma Court.

- Relocate the bus stop at Raley's to avoid the bus traveling across the front of the store and conflicting with pedestrians and speed bumps. This will require working with the store owners to identify a spot where the bus can load/unload for up to 6 minutes without unduly blocking traffic or parking.

Any reduction in ridership associated with reduced service on request stops would be offset by ridership generated by the improved reliability of the service. A negligible reduction in operating costs would accrue, due to the modest reduction in vehicle mileage.

Designate More Stops along Pollock Pines Route

Only six bus stops currently are designated with signs on the Pollock Pines Route outside of the immediate Placerville area: three in Pollock Pines, two in Camino, and one in Camino Heights. The designated stops serve 80 percent of the route's ridership, while the remaining 20 percent of boardings occur at on-request stops. Topography, limited right-of-way, and other constraints have been challenges in designating additional stops.

In general, designating stops provides several benefits: (1) it shows passengers an acceptable location to wait for the bus; (2) it indicates to drivers where a passenger can be served without an undue safety hazard; and (3) it provides an ongoing physical "presence" in an area that increases public awareness of the service and thus yields a substantial marketing benefit.

Other than the stops already designated, only two on-request stops get any significant level of activity (defined as 3 or more total passenger boardings or alightings per day): Pony Express/Mace (3 total passengers per day) and Pony Express/Alder Road (5.4 passengers per day). Under this alternative, additional stops would be designated with at least bus stop signs, focusing on these higher passenger activity locations.

It should be noted that it is often appropriate to designate stops even where all of the criteria of a perfect bus stop cannot be provided. For instance, it is common in rural areas to use an existing paved intersecting driveway or roadway shoulder to deploy a wheelchair lift, rather than requiring stops only be located where a 5' X 8' wheelchair pad can be provided. It is important, however, in the case of the Pollock Pines route that (1) some means of loading and unloading wheelchair users be available; (2) the bus be able to stop without impeding through travel lanes along Carson Road or Pony Express Trail; and (3) a safe standing area be provided for waiting passengers.

Extend Evening Local Route Service by One Hour

At present, the earliest "last departure" time on the local routes is as follows:

- Placerville (Eastbound) – 5:00 PM (Missouri Flat Transit Center)
- Placerville (Westbound) – 5:00 PM (Woodman Circle)
- Pollock Pines (Eastbound) – 4:30 PM (Missouri Flat Transit Center)
- Pollock Pines (Westbound) – 3:30 PM (Safeway Plaza)
- Cameron Park – 5:00 PM (Missouri Flat Transit Center)
- Diamond Springs – 5:00 PM (Missouri Flat Transit Center)

This span of service precludes employees getting off of work at 5:00 PM or later from using transit to travel home.

Under this alternative, one additional run on weekdays would be operated on the Placerville Routes, the Diamond Springs Route, the Pollock Pines Route, and the Cameron Park Route. In addition, one additional hour of DAR service would be added for complementary paratransit service in the Placerville area. While this would require operating a second bus on the Cameron Park Route, the other schedules could be extended without additional vehicles being required.

The estimated net annual increase in operating cost to extend local deviated fixed route service by one hour would amount to $161,300. The consultants reviewed current EDT ridership data by hour of day to determine late afternoon trip patterns and to develop anticipated annual evening ridership. In addition, the productivity of evening service on similar transit systems already providing such service was reviewed. Based on this analysis, approximately 16,500 additional annual one-way passenger-trips and $19,800 in farebox revenues are anticipated under this option. Thus, the annual net increase in subsidy required would total $141,400 for the local deviated fixed route service.

Extend Evening Local Transit Service by Three Hours

A more extensive option for evening service would extend the schedule by roughly three hours, with services generally ending around 9:00 PM. Last departures would be as follows:

- Placerville (Eastbound) – 8:00 PM (Missouri Flat Transit Center)
- Placerville (Westbound) – 8:00 PM (Woodman Circle)
- Pollock Pines (Eastbound) – 7:30 PM (Missouri Flat Transit Center)
- Pollock Pines (Westbound) – 6:30 PM (Safeway {Plaza)
- Cameron Park – 7:00 PM (Missouri Flat Transit Center)
- Diamond Springs – 8:00 PM (Missouri Flat Transit Center)

As the additional Cameron Park run would not departure until the existing last Cameron Park run has ended, no additional buses would be required to operate this alternative. The estimated net annual increase in operating cost would be $419,800. Reviewing ridership patterns in similar transit programs with evening service, this option would increase overall ridership by an estimated 25,700 passenger-trips per year. Subtracting $34,700 in new farebox revenues, this option would increase subsidy requirements by $385,100.

Start Diamond Springs and Placerville Services One Hour Earlier On Weekdays

The review of current passenger activity by hour (as shown in Table 24) indicates relatively high ridership on the first runs of the Diamond Springs and Placerville Routes, departing at 7:00 AM. Given this, it is worthwhile to consider adding an earlier run on these routes, departing at 6:00 AM. As shown in Table 52, this would incur $67,100 in additional operating costs. Considering existing ridership and observed ridership patterns in similar transit programs, an estimated 4,100 passenger-trips would be generated, yielding $4,800 in annual farebox revenues and a net subsidy requirement of $62,300.

Expanded Hours of Saturday Express Local Route Service

At present, Saturday local route service is provided by the Saturday Express (a combination of the Pollock Pines and Placerville Routes), consisting of two buses operating a two-hour route between Missouri Flat Transit Center and Pollock Pines from 9:00 AM to Noon and from 1:00 PM to 5:00 PM. While this is relatively efficient in that it requires only two drivers to operate, the limited hours of operation and the gap in service during the Noon hour limits passenger's ability to accomplish their trips (particularly for employment). Two options were evaluated for expansion of the Saturday Express:

- In the more limited option, the Noon – 1 PM break in service would be "filled in", and an 8:00 AM westbound run added along with a 4:00 PM eastbound run. This pattern best matches the observed travel pattern (westbound in the morning and eastbound in the evening). This alternative would increase costs by $18,600 per year. An increase in ridership of approximately 1,800 passenger-trips per year would be generated, yielding $2,200 in increased passenger fares and a subsidy of approximately $16,400 per year.

- A more extensive expansion of Saturday service would be to provide Saturday Express service from 8:00 AM to 5:00 PM (including the Noon hour) in both directions. This yields an operating cost increase of $27,800 per year, a ridership increase of 2,100 passenger-trips, $2,500 in fare revenues, and a subsidy of $25,300.

Expanded Saturday Local Route Service

The current Saturday service plan does not provide transit service beyond the US 50 corridor between Missouri Flat and Pollock Pines. In considering expanded service area, the most likely candidate would be to operate the Diamond Springs route on a limited Saturday schedule. Assuming this service was operated from 9 AM to 5 PM, operating costs would be increased by $32,900 per year. Based on the existing Diamond Springs ridership and the observed ratio of Saturday to weekday ridership in similar settings, this service expansion would serve roughly 2,900 passengers per year. Subtracting the incremental fare revenue of $2,600 per year, subsidy requirements would be increased by an estimated $30,300 per year.

Convert Existing Deviated Fixed Routes to Fixed Routes and Expand Complementary Paratransit Services

For many years, all of EDT's local route services were operated as deviated fixed routes. Under this service strategy, buses typically follow the published route, but will deviate up to ¾ of a mile to serve persons eligible under the Americans with Disabilities Act. In 2004, the inability of the Placerville deviated fixed route service to maintain schedule given the concentration of deviation requests in this area led to the implementation of a fully fixed route service plan for the Placerville East and Placerville West service, with the ADA requirement for direct service for ADA eligible riders addressed through a new ADA complementary paratransit service, available only within 3/4 mile of these fixed routes. The remaining three local routes (as well as the Grizzly Flat flex route) continue to provide deviations to ADA eligible passengers, for a charge of $0.50 per deviation. As shown in Table 29, the number of deviation requests on the remaining deviated fixed route is quite modest, averaging only 3.2 deviations per day over all three routes.

A Federal Transit Administration auditor recent indicated that this service plan does not fully address the requirements of the ADA, as the deviated fixed routes do not meet the FTA's definition of a deviated service since they do not offer deviation for all passengers (only ADA eligible passengers). There would be two options to conform to this opinion: make deviations available to all (including the general public, as discussed below), or convert the existing routes to a strict fixed route service, and provide separate complementary paratransit service to all

areas within ¾ miles of all portions of the Pollock Pines, Diamond Springs, and Cameron Park Routes, as well as the Saturday Express on Saturdays.[4]

Ridership generated by the first option of providing additional complementary paratransit service was estimated to be 4,800 additional one-way passenger trips, based upon existing ADA trips in the Placerville service area, factored by the relative demand for service in the additional service areas to that in the existing service area. Serving these additional trips (at a relatively long travel distance from the operations facility) would add approximately 65,000 vehicle-miles and 4,800 vehicle-hours of service per year, requiring $254,300 in additional operating costs. Subtracting $9,600 in additional ADA fares, this option would increase operating costs by roughly $244,700 per year. Furthermore, two additional vehicles would be needed in operation at peak times.

Provide Deviations for the General Public

The other way to revise the deviated fixed routes to address the FTA opinion would be to allow deviations available to all persons traveling within ¾ mile of the local fixed routes (and Grizzly Flex Route), but establish a high fare for non-ADA eligible passengers. Without a high fare to reduce demand among the general public, there is the potential for a large demand for deviations that would preclude the ability of the existing routes to maintain schedules[5]. While ADA regulations place limits on the fares charged for ADA passengers, there are no regulatory limits on the fare established for the general public. A reasonable rationale for setting this charge would be the estimated cost needed to serve a deviation required. Applying the EDT cost model, this would indicate a general public deviation charge of $6.00. This charge should be sufficiently high to reduce actual usage to minimal levels, allowing the existing routes to provide adequate on-time performance on current schedules. As a result, the overall impact of this policy change would be minimal.

Strategies to Serve El Dorado County Offices

EDT services play an important role in the overall provision of County social services. Program offices are located in various communities, some individuals need to visit two or more locations to address all of their needs, and many clients do not have ready access to a private vehicle. It is therefore important that transit services provide access from residential areas to these offices, as well as connections between offices.

To assess the specific needs for transit services, the Consultant provided a series of survey forms to be used by the staff at the various social service offices. As documented fully in Appendix B, these surveys generated information on client travel mode, as well as the need for travel between the various offices. Useful survey data was collected from the following key locations:

[4] Note that the existing Dial-A-Ride service cannot serve as the complementary paratransit service under ADA regulations, due to the fare structure, hours of operation, and reservation requirements.

[5] One example would occur if parents decide to take advantage of a low general public deviation fare to carry children to or from school, rather than driving them. It would only take a few such daily deviations to significantly impact the ability to maintain schedules.

- El Dorado County Department of Probation (located at 3974 Durock Road in Shingle Springs)

- El Dorado County Department of Mental Health (located at 768 Pleasant Valley Road in Diamond Springs)

- El Dorado County Public Defenders' Office (located at 630 Main Street in Placerville)

Information for a total of 609 individual clients was captured in this survey. Overall, only approximately 30 percent drove themselves to the office, 50 percent were driven by another individual, and 20 percent took transit, walked, or bicycled. A large proportion (roughly 80 percent) was traveling to/from a private residence, while an additional 15 percent was traveling to other locations (such as a store) that are not a County Office. Overall, only approximately 5 percent of trips to/from these offices were to or from other County offices. This corresponds to approximately 10 clients per day traveling directly between County offices. Given that a shuttle service to directly connect County office locations consisting of a single vehicle operating 8 hours per business day would incur a cost on the order of $153,000 per year, operating an additional van specifically for this purpose would not be cost effective.

Instead, it is beneficial to review how the existing EDT services can better serve County offices. Fortunately, many County offices are currently served by EDT, including the various offices at the Government Center, the Child Protective Services on Briw Ridge Court in Placerville, the Superior Court and the Public Defender's Office in downtown Placerville, and the Cameron Park Superior Court. As well, transitional housing on Spring Street and Debbie Lane are close to transit stops. Implementation of the US 50 Express scenario, as discussed above, would allow the Cameron Park Route to be reconfigured to an hourly service that could directly serve a stop at the Department of Probation office on Durock Road in Shingle Springs. This scenario would also provide hourly connections between Cameron Park/Shingle Springs, rather than the existing service every three hours. Finally, it would provide one-bus connections along US 50 to the Government Center from El Dorado Hills, Cameron Park and Shingle Springs. With these improvements, EDT would provide connections between all of the key County offices on an hourly frequency. It should also be noted that the recent construction of a pullout and bus stop at the Department of Mental Health office on Pleasant Valley Road now allows this key office to be served each hour by the Diamond Springs Route.

RURAL ROUTE ALTERNATIVES

New Rural Routes

Rural route services are currently limited to one-day-a-week (Thursday) morning and afternoon runs to Grizzly Flat. One potential new service area is the South County Mt. Aukum/Somerset area. However, ridership generated by transit service operated from 2005 to 2008 was disappointingly low (less than 200 one-way passenger-trips per year, and only 151 in the last full year of service). Similar to the Grizzly Flat service, the South County service consisted of a morning and evening run operated on one day per week. Though the service has been offered for several years and efforts were made to publicize the service in the South County community, only 151 passenger-trips were served over the course of the last year (or roughly 3 one-way trips per day of service). A review of 2000 Census data for this area in comparison

with the most recent available data indicates that total population has increased slightly (by 5 percent), with modest changes in the number of persons with a high potential to use transit service. Overall, the change in transit need does not indicate that a reinstatement of service would be effective.

Another potential new rural service area is the Georgetown Divide/Garden Valley area. A one-day-a-week service with morning and evening runs between this area and Placerville could also serve the Coloma area. A demonstration project was operated in FY 2001-02, which generated only a few passenger-trips per day. Comparing trends in population since that time, total population has increased somewhat (by 16 percent), with senior population increasing by 10 percent and mobility limited and low income population virtually unchanged. Given the relatively long length of this route, operating this service would incur a cost of roughly $16,000 per year. In light of this cost, the low ridership of the previous service and the modest change in need since that time, there is little potential that a new service to the area would meet established EDT service productivity standards.

Provision of Service between Georgetown, Cool and Auburn

Residents of the northwestern portion of the County, including the communities of Georgetown, Cool, and Pilot Hill, tend to travel to Auburn for medical appointments, pharmacy visits, and other needs. Similar to the Grizzly Flat service, a service could be established operating one day a week at least initially, with a single morning run and a single afternoon run. A van would deadhead to Georgetown and then provide service through Cool (and Pilot Hill on request) to Auburn and North Auburn before returning to the operating base. A stop at the Auburn Amtrak Station would provide connections to Placer County Transit and Nevada County's Gold Country State transit programs, as well as intercity Amtrak and Greyhound service. The afternoon service would operate in the opposite direction. This route would require roughly 2.5 hours to operate per trip, with a travel distance of up to 80 miles.

Applying EDT's cost model, this service could cost up to $25,100 per year. Ridership, based on actual ridership for similar services in rural portions of Northern California (including Grizzly Flat) adjusted to reflect population characteristics, is estimated to equal approximately 1,200 one-way passenger-trips per year or 23 per day. Applying the fare structure of the Grizzly Flat route, annual passenger fares would generate approximately $6,400 per year, leaving a subsidy of $18,700.

Placerville – South Lake Tahoe Service

At present, public transportation travel between western and eastern El Dorado County is limited to the Amtrak Thruway bus service connecting Sacramento, Placerville, South Lake Tahoe and Stateline (Nevada). A state law passed in 2008 makes this service available to travel between Placerville and South Lake Tahoe. One run per day is operated in each direction, leaving Placerville Station eastbound at 11:15 AM (arriving at the South Lake Tahoe Y Station at 12:35 PM), and departing South Lake Tahoe at 2:35 PM for a 3:55 PM arrival in Placerville. Fare is $20 per one-way trip. With a $40 round-trip cost and a schedule that does not allow a same-day round-trip (for more than a short stay in South Lake Tahoe), the utility of this service for local travel is limited. Total annual ridership on this service that does not include a rail portion of the passenger's trip is 992 (per Caltrans documents). While specific data is not available, it is

reasonable to assume that the majority of this ridership is probably between South Lake Tahoe and Sacramento, indicating that at most only a few hundred passenger-trips per year are served between Placerville and South Lake Tahoe.

There are several potential generators of public transit ridership between western and eastern El Dorado County:

- There is a potential for skiers/snowboarders and other visitors to use the service to access Sierra-at-Tahoe and other winter resorts in the Tahoe Region. The *Tahoe Basin Intraregional Interregional Transit Study* (LSC, 2005) includes an evaluation of ridership demand, assuming a service operating from Sacramento and Placerville to Sierra-at-Tahoe and Heavenly ski areas with 3 runs per day in each direction (eastbound in the morning, and westbound in the afternoon) on weekends and holidays. At a $10 one-way fare, annual skier ridership is estimated to be 9,600 passenger-trips per year.

- Similarly, the potential transit ridership generated by summer visitors to the Tahoe Region is also evaluated in the *Tahoe Basin Intraregional Interregional Transit Study*. Operating three buses between Stateline and Sacramento, served on two-hour headways. If operated every day of the week from mid-June through Labor Day, this service was found to generate 22,900 passenger-trips per year, based on an analysis of ridership generated by similar services to mountain recreation areas in summer.

Absent a larger regional transit service connecting Sacramento with South Lake Tahoe, a reasonable transit service for EDT to operate would consist of one morning and one afternoon round-trip, originating in Placerville. For example, eastbound departures could be provided from Placerville at 7:00 AM and 4:00 PM, with westbound departures from the Stateline Transit Center at 9:00 AM and 6:00 PM. Stops could be served at the Central Transit Center in Missouri Flat, the El Dorado County Government Center (including the Fairgrounds Park-and-Ride), Placerville Station, Sierra-at-Tahoe (winter only), the South Y Transit Center, and the Stateline Transit Center. A reasonable service plan would be to operate this service seven days per week during the summer and winter, and weekdays only in the spring and fall. Considering that passengers from Sacramento or beyond would need to transfer to this service in Placerville (or park-and-ride), and assuming a $10 one-way fare, this service would serve on the order of 8,500 passenger-trips per year. As shown in Table 52, this service plan would incur an operating cost of approximately $246,300 per year, and an operating subsidy of $161,300. Furthermore, an additional bus would need to be obtained.

While the costs associated with new service would be substantial if shouldered entirely by EDC (or EDC assisted with state or federal funds), there are potential other partners that could help shoulder these costs. In particular, the Tahoe Transportation District (which manages the transit program serving South Lake Tahoe) has indicated an interest in partnerships to expand public transit connections between the Tahoe Region and western El Dorado County (and beyond). In addition, major travel generators along the corridor (such as Sierra at Tahoe Resort) could be potential partners.

COMMUTER SERVICE ALTERNATIVES

Revise Commuter Schedules to Address Overcrowding And/or Low Productivity Runs

The existing commuter service has several runs with ridership that is typically over seating capacity:

- A review of ridership by run data for Mary, 2013 indicates that in the AM one run in particular was consistently over seating capacity: Run 10, which departs the Central Park-and-Ride at 6:35 AM, serves the Fairgrounds, Ponderosa Road and El Dorado Hills Park-and-Rides, and then serves downtown Sacramento stops between 7:39 AM and 7:59 AM. Daily ridership ranged from 47 to 56 passengers, with an average passenger load that is 13 more passengers than the second-highest ridership run. While these figures indicate that seating for all is provided by the 57-seat buses, this level of passenger loads reduces passenger's comfort and also increases their concern that seating on any particular day may not be available. The popularity of this run is probably due to the fact that it is the latest run that allows employees to get to work for an 8:00 AM start time. Overall, the AM ridership has shifted to the later runs. Of the 11 AM runs, all three of those with the highest ridership serve downtown stops after 7:45 AM. A departure from Cambridge Road Park-and-Ride at 7:01 AM would parallel the Run 10 downtown arrival times, and encourage a shift to parking at Cambridge Road.

- Returning home, ridership on Run 5 averages 41 passengers per trip, ranging from 32 to 50 on individual surveyed days. This run departs downtown Sacramento between 4:18 PM and 4:35 PM, making the first stop in El Dorado County at El Dorado Hills at 5:20 PM. This is the first run available for employees getting off of work at 4:00 PM, and is a full 43 minutes after the previous run (Run 8). There is a parallel run (Run 4) serving downtown stops only one minute behind Run 5 and serving a first stop in El Dorado Hills at Cameron Park. A new run approximately 10 minutes before Run 5 (starting at P & 9th at 4:10 PM) would alleviate the overcrowding on Run 5, and provide greater convenience for those passengers leaving work between 3:30 PM and 4:00 PM.

At the same time, there are several runs with relatively low ridership:

- In the morning, there are several runs with relatively low ridership, in particularly Run 3 with an average of 17 passengers and Run 4 with an average of 15 passengers. These runs both arrive in the downtown area at roughly the same time (starting at 5:45 AM and 5:40 AM, respectively), but serve different park-and-rides. Considering combining these runs by adding stops, however, indicates that overcrowding would occur on some days. Between this and the additional in-vehicle travel time, this is not a feasible option.

- In the evening, the lowest average ridership is served by the first run (Run 12, with 18 passengers per day), Run 3 (with 18 passengers per day) and the last run (Run 6, with 16 passengers per day). Review of daily ridership for these three runs, however, indicates that any elimination would overload other runs. In addition, the provision of the last Run 6 is important in the overall attractiveness of the commuter program, as it provides all riders with "insurance" that they can return home even if they must stay late at work.

In light of these ridership patterns, a reasonable alternative would be to operate one additional round trip in each peak period, specifically (1) a new AM run departing Central Park and Ride at 6:25 AM, serving several park-and-rides including a last one at Cambridge Road at 7:01 AM, and start serving downtown stops at P/30th at 7:37 AM. And (2) a new PM run departing P / 9th at 4:10 PM and serving the park-and-rides starting with El Dorado Hills at 5:12 PM. Similar to some of the existing runs, this additional bus would be parked downtown during the day, with the driver traveling to and from base on another bus. Including the additional cost of these paid driver hours, these additional runs would incur an annual operating cost of approximately $118,100 per year. An evaluation of ridership patterns and commuter service response to increased frequency indicates that this option would increase overall annual ridership by an estimated 14,100 passenger-trips per year (or 57 per service day). Subtracting the resulting increase in fare revenue of $79,800, subsidy requirements would increase by an estimated $38,300 per year.

Reinstatement of EDT Transit Service to Rancho Cordova

Until July 2006, EDT operated a commuter bus service from El Dorado County to the majority of employer sites in Rancho Cordova, consisting of two AM and two PM runs per day. Ridership in FY 2004-2005 totaled only 2,935 one-way passenger-trips, which generated only 2.8 passenger-trips per vehicle-hour of service and a farebox return ratio of only 6 percent. Due to this poor ridership (typically two to four passengers per run), the service was discontinued.

The *US 50 Corridor Transit Plan* conducted by LSC in 2006 identified a range of reasons why the ridership on the service was not higher. Some had to do with the quality of the transit service, notably the limited number of departures in the morning (two runs, effectively serving a 6:00 AM and 8:00 AM start time) and the ride quality of the older buses used in this service. However, the larger issue was that the "competing" travel mode – the private automobile – provides a more convenient overall trip, as (1) extensive free parking is available at employment sites, (2) overall traffic congestion on the US 50 corridor between El Dorado County and Rancho Cordova is not sufficient to discourage auto use (3) auto drivers are not tied to a fixed transit schedule and (4) there is no need to make the inconvenient transfer at a Park-and-Ride lot. As a result, the proportion of commuters from El Dorado County to Rancho Cordova employment sites using transit was found to be only 0.3 percent, while the proportion traveling to work in downtown Sacramento on the EDT transit service was found to be a full 40 percent.

Since the cessation of service, the potential demand for EDT service has been increased by additional development in the area, including additional buildings on the FTB campus. Overall, employment in the area previously served by the EDT Rancho Cordova route has climbed by roughly 20 percent. While it can also be argued that demand has been increased by the rise in gas prices in recent years, there is little evidence that this has significantly shifted commute travel modes, particularly for the economic level typical of Rancho Cordova employees. Along with revisions to schedules and improvements in vehicles, it is reasonable to assume that a new Rancho Cordova route would generate 30 percent higher ridership than previously.

A service similar to that previously operated (two scheduled trips in the AM and in the PM peak periods, using two vehicles) at current unit costs would total roughly $206,300 per year. At a

ridership of approximately 3,800 passenger-trips per year, $8,700 in fares would be generated, yielding a subsidy requirement of $197,600 per year.

Serve Stop in Rancho Cordova on Selected EDT Sacramento Downtown Commuter Runs to Allow Transfers

One reason for the inefficiency of EDT service to Rancho Cordova in the past is that substantial vehicle running time and costs were expended on providing direct service to many employers dispersed over a wide area. This was necessary because local collector service (that could be used to transfer passengers to their destination) were limited to very few Regional Transit routes.

In 2009, however, the City of Rancho Cordova instituted the Rancho Cordovan service, consisting of two routes operated by Sacramento RT in the Zinfandel Drive area. In particular, the "Villages Service" consists of a 17-passenger vehicle operating a clockwise loop along Zinfandel Drive, White Rock Road, Prospect Park Drive and Baroque Drive, along with a two-way extension north to Zinfandel Light Rail Station. This service operates every 15 minutes between 5:57 AM and 9:12 AM, as well as between 3:27 PM and 6:57 PM. The route serves stops near many major employers, including VSP, EDS, Delta Dental, Bank of America, and the California Department of Child Services. EDT could potentially connect with this service by adding a stop on two AM and two PM commuter runs.

On the AM runs, a stop on Run 8 would serve Rancho Cordova at roughly 6:53 AM, while a stop on Run 12 would be served at roughly 7:45 AM. After exiting US 50 westbound, the bus would turn right onto Zinfandel Drive, serve the Zinfandel Station bus stop, and then return southbound on Zinfandel Drive before entering the US 50 westbound on-ramp. This route requires passing through signalized intersections four times, and would add 5 to 6 minutes to the schedule (requiring the start times of these runs to be backed up 5 to 6 minutes). While this takes transferring passengers a bit out of their way, it provides a direct bus-to-bus transfer without the need to cross a street, and minimizes the travel time impacts on the runs.

On the PM runs, stops could be served on Run 3 at roughly 5:08 PM, and Route 11 at roughly 5:23 PM. Rather than also serving Zinfandel Station, the eastbound EDT buses would exit US 50 and proceed straight across Zinfandel Drive onto Gold Center Drive, and then make a series of right turns on Prospect Park Drive, White Rock Road and Zinfandel Drive before serving the northbound stop on the east side of Zinfandel Drive just north of White Rock Road (where a direct transfer to the Cordovan service is possible). The EDT bus would then proceed northward onto the US 50 eastbound on ramp. This route would require passing through signalized intersection four times, and would add approximately 5 minutes to the running time, making the arrivals in El Dorado County approximately 5 minutes later.

Potential ridership generated by these additional stops can be calculated by considering the number of Western El Dorado County residents working in Rancho Cordova (approximately 2,800) factored by the proportion of Rancho Cordova jobs in the Cordovan service area (approximately 13 percent) and applying a commute transit mode split of 1 percent. Approximately 7 passenger-trips per day would be served at these stops. On the other hand, an elasticity analysis applied to the existing ridership on the four runs indicates that the additional

travel time would induce roughly 3 passengers per day to shift to other modes. Overall, ridership would be increased by an estimated 4 passenger-trips per day, or 1,800 per year.

The additional running time and mileage would result in a modest increase in annual operating costs of $5,900 per year. Subtracting $2,500 in fares, this alternative would increase overall subsidy requirements by an estimated $3,400 per year.

As an aside, a similar new interim stop could be implemented on some runs at 65th Street in eastern Sacramento, in order to serve California State University Sacramento. In particular, serving the existing bus transfer point at 65th Street and Q Street would provide a direct transfer to the Hornet campus shuttle bus, which serves this stop every 13 minutes from 7:44 AM and 5:00 PM. This stop would also provide direct transfers to RT Routes 26, 38, 81, 82 and 87, as well as Light Rail. There are convenient US 50 ramp connections in both directions. The travel time and cost impacts of this option would be similar to those for the Rancho Cordova stop.

Reduction in Service To Rodeo Lot

The existing ridership generated by the Rodeo Lot stop in Cameron Park on the current four runs per day in each direction is relatively low. A review of morning boardings at this stop over a typical week indicates the following average daily boardings by stop:

AM Period
Run 1: 1.6 boardings at 5:40 AM
Run 2: 1.8 boardings at 6:00 AM
Run 6: 3.2 boardings at 6:24 AM
Run 7: 1.6 boardings at 8:19 AM

PM Period
Run 7: 1.2 deboardings at 4:22 PM
Run 9: 1.6 deboardings at 4:37 PM
Run 8: 0.4 deboardings at 4:54 PM
Run 4: 2.2 deboardings at 5:30 PM

Under this option, service to the Rodeo Lot would be reduced to Runs 2 and 6 in the morning, and Runs 8 and 9 in the evening. This would have a negligible overall impact on ridership: most of the existing passengers using the eliminated runs would shift to use of another park-and-ride location, resulting in a small (1 to 2 passenger-trips per day) reduction that would be offset by ridership generated from the reduced travel time between Sacramento and the Placerville and Shingle Springs area. Operating costs would be reduced by an estimate $7,300 per year, and passengers would be provided with a shorter travel time. There is generally available parking capacity at the other nearby lots to accommodate one or two additional vehicles shifting from the Rodeo Lot due to this option.

Commuter Service to El Dorado Hills Employment Sites for Sacramento County Residents

As discussed in Chapter 4, the demand for transit service for Sacramento County residents commuting to El Dorado Hills is modest. While there are approximately 1,550 employees

making this commute, the availability of free parking, modest level of traffic delays in the "off peak" direction and the wide variety of work shifts indicates that actual transit demand is only approximately 25 passenger-trips per day.

Currently, two morning and two afternoon existing commuter runs on El Dorado Transit are available for reverse commuting. (These runs are used to position buses and to transport drivers to and from the buses parked in Sacramento during the mid-day period.) However, the first of these services does not get to the El Dorado Hills Park-and-Ride eastbound until 8:00 AM, and the last westbound bus leaves at 5:05 PM, making a typical eight-hour work day by commute possible only if the commuter works within close walking distance of the transit center. Additionally, the Iron Point Connector (IPC) provides eastbound service departing the Iron Point light rail station at 6:52 AM and arriving at El Dorado Hills at 7:24 AM. However, in the afternoon, the westbound trips leave El Dorado Hills at 4:39 PM and 6:39 PM, which are too early and too late (respectively) for most commuters. To make commuting to El Dorado Hills possible for reverse commuters, the current schedule would need to be altered in the afternoon, or additional service would be needed to meet demand. Given the low demand, it would be too expensive to add service to meet this demand, but if the current schedule could be altered to meet demand, this would be a no-cost option.

Vanpool Program

A cost-effective and more affordable option for employee transportation for El Dorado Hills (particularly with odd shift times) would be to participate in a vanpool program. The Sacramento Area Council of Governments (SACOG) oversees the well-established "Rideshare" program which helps facilitate carpool and vanpool formation. To form a vanpool, one person volunteers to be the primary driver/coordinator of the van. In exchange for taking on that responsibility, the driver sometimes does not pay towards the cost of the vanpool or pays a reduced cost. Riders usually meet at a designated pick-up location such as a park-and-ride lot or transit transfer point. Some vans have more than one pick-up point, while others do not. The same applies to drop-off points at the destination.

The riders share a fee that covers the cost of the vanpool lease and gas (or a personal vehicle may be used). The leasing price depends on the number of miles the vanpool travels each month, how many people are in the van and the vanpool vendor. All maintenance, license, and insurance costs are included in the lease. Vanpool information can be found at https://rideshare.511.org/vanpool/.

COMPLEMENTARY PARATRANSIT / DIAL-A-RIDE / VOUCHER / Sac-Med ALTERNATIVES

Later Dial-A-Ride Service

Dial-A-Ride service current ends at 5:00 PM. Under this alternative, the hours of service would be extended until 8:00 PM, seven days a week. This would allow passengers mobility for evening activities and work shifts, as well as expand the ability to use DAR for commuting on day shifts. The additional service would incur a cost of $88,600 per year. Ridership, based on existing EDT ridership and the observed relative demand for evening DAR service in similar systems, is estimated to equal approximately 5 passenger-trips per day, or 1,700 per year. The

resulting $4,500 in passenger revenues would yield a net subsidy requirement of $82,100 per year.

Change DAR Zone System To Provide $2.00 Base Fare for El Dorado Hills, Cameron Park / Shingle Springs, and Placerville Zones

The Dial-A-Ride service is organized in a series of 12 zones (Zones A through L), with the fare varying by zone as well as by the number of zone boundaries crossed. This system was established to charge a fare commensurate with the cost of serving the trip, given that the single operating base is located in Diamond Springs. While it is generally reasonable to adjust fares based on proximity of residences (i.e., someone who chooses to live in the remote community of Coloma would be expected to pay a fare premium), El Dorado Hills is a major center of population, and therefore it can be argued that it is more equitable to establish fares similar to what other centers of population pay (such as Placerville). Under this alternative, fares for the three zones encompassing Placerville, Cameron Park/Shingle Springs and El Dorado Hills would be set at the existing ADA-eligible fare of $2.00 per one-way trip. The fares to cross transit zones would remain at $0.50 per crossing for ADA-eligible passengers. As a result, the current $5.00 dial-a-ride fares in El Dorado Hills would be reduced to $2.00 per passenger trip, while the current $3.00 fare in the Cameron Park/Shingle Springs zone would also be reduced to $2.00.

To determine the impact of the fare reduction, ridership data over two weeks in March 2009 was examined (when El Dorado Hills base fares were $2.50) and compared to ridership at the increased fare ($5.00) from two weeks in May 2012. It was found that ridership was fairly low to and from El Dorado Hills both years, but the proportion of trips was higher in 2009 compared to 2012. In 2009, 213 of 1,642 dial-a-ride trips over two weeks in March had their origin or destination in El Dorado Hills (13.0 percent of trips) while in 2012, only 124 of 2,174 dial-a-ride trips in the two week period in March started or ended in El Dorado Hills indicating the price change did have an impact. Based on annual ridership, this would indicate that at a fare of $2.50, approximately 2,300 dial-a-ride one-way passenger trips were served to or from El Dorado Hills, compared to 1,350 one-way trips at a fare of $5.00. This data was used to identify an elasticity value.

Next, the impact of this alternative on the fare between each zone was calculated. An elasticity analysis was then performed on the ridership between each origin/destination zone, applying this elasticity value, to identify the change in ridership resulting from the fare reduction. An increase of approximately 1,600 passenger-trips per year (or 6 passenger-trips per day) would result. The vehicle-hours needed to serve these additional trips were then calculated (based on the travel time from Diamond Springs) to be 1,954 hours per year. Similarly, 45,100 vehicle-miles per year would be expended to serve these trips. Applying the cost model, an increase in operating cost of $165,700 would be incurred. The net change in fare revenues, calculated by multiplying the fare between each origin-destination pair and ridership under this alternative versus the current condition, was found to equal a $2,500 reduction in fares. Overall, this alternative would increase subsidy requirements of the DAR service by $168,200.

Change DAR Zone System to Provide $2.00 Base Fare for All Zones Along US 50 Between El Dorado Hills and Pollock Pines

A disadvantage of the previous alternative is that it results in a higher fare for portions of the US 50 corridor (Pollock Pines, Camino) than other portions of the US 50 corridor, even though the cost to EDT to serve these trips is comparable. A more extensive alternative would be to apply the Zone A $2.00 base fare to all five DAR zones between El Dorado Hills and Pollock Pines. Again, the $0.50 charge to cross a zone boundary would still apply. The analysis procedure presented in the previous discussion was applied. Under this alternative, total annual ridership would increase by an estimated 2,200 passenger-trips per year. To serve these additional trips, operating costs would be increased by roughly $228,800 per year. Adding the loss of $3,700 in annual fares, the total impact on subsidy would equal $232,500 per year.

Modify Complementary Paratransit Reservation Period

At present, the brochure for the ADA Complementary Paratransit service indicates that rides may be requested "1 to 14 days in advance of the required travel time". This could be interpreted as requiring a reservation at least 24 hours prior to the desired pickup time. However, ADA regulations (specifically Section 37.131(b) of the Code of Federal Regulations) require that reservations be possible throughout the full prior business. To be clear, brochures and other marketing materials should indicate that reservations may be made up until 5:00 PM of the day prior to the desired day of service.

Expanded Dial-A-Ride Service

As the population of the study area increases, and as the population ages, demand for DAR service will increase. In addition, a review of ridership logs demonstrates that no additional capacity exists during peak periods. As such, a reasonable alternative is to add approximately 12 vehicle service hours per weekday (increasing the peak vehicles in operation by two) to meet existing and potential future demand.

Under this service alternative, the daily service vehicle service hours would be allocated by operations staff depending upon anticipated needs. For example, staff could operate one vehicle throughout the service day to "distribute" ridership over the entire day, or staff might find it more beneficial to use two buses during the peak periods. Either way, this alternative assumes that operations staff is best able to determine how these additional resources would ultimately be used. As presented in Table 53, this alternative would increase annual vehicle service miles by 62,894 and vehicle service hours by 3,000. This would require an additional $246,100 in operating funds. Annual ridership under this alternative is anticipated to be 7,300 one-way passenger-trips and passenger fare revenues are anticipated to be $19,500. The resulting annual subsidy would be $226,600.

Taxi Voucher Program

The concept of a taxi voucher program is to direct the public subsidy funding traditionally provided to the transit provider (such as El Dorado Transit) and instead providing it directly to the transit user, in the form of a voucher that can be used to purchase private transportation services. As these private transportation services are often taxi companies, this concept is also

referred to as a “taxi voucher” program. Existing examples of taxi voucher programs can be found in Solano County, Thousand Palms, and Lassen County.

User-side subsidy programs are only effective when a reliable and willing taxi provider can be engaged, and when the contract clarifies expectations for customer service and vehicle standards, among other details. El Dorado County and many other public entities have experienced unfavorable taxi-voucher programs in the past due to poorly written contracts, or due to taxi companies’ inability to meet the required standards. However, the presence of long-standing and successful programs indicates that this service option can effectively address specific transportation needs. There are a number of methods for subsidizing the service, such as a voucher system (subsidizing a portion, such as 50 percent, of a trip); scrip (where discounted tickets or books of tickets are bought at a discount and redeemed for face value); and coupons (purchased at a discount, entitling the passenger to percentage discount of the normal charge).

As an area of relatively limited size, it would be possible to negotiate a flat fare with taxi companies for all trips within El Dorado Hills. Under this scenario, El Dorado Transit would offer discounted coupons to eligible passengers for one-way passenger trips within El Dorado Hills and participating taxi companies would accept the coupons and redeem them at the negotiated rate. Several taxi companies in the area have fares of a $3.00 flag fee and $3.00 per mile thereafter. Average taxi travel distances and resulting fares were estimated based upon an analysis of the proportion of residential trip origins in the various portions of El Dorado Hills versus the proportion of trip designations in each commercial/institutional activity center. This yielded an average trip length of three miles and an average full fare of $12.00. While the potential for increased and more consistent patronage under a voucher program could result (through negotiation) in a lower rate, a conservative estimate of a flat rate fare is $12.00 per trips. This alternative would have two options: one in which the voucher program is available only for ADA-eligible passengers and one for general public passengers as well.

There are three taxi companies based in Placerville and five in Folsom which could potentially participate in a taxi voucher program. One company, Gold Rush Taxi based in Placerville, already contracts with the El Dorado County Department of Social Services to provide transportation for social service programs. Another, Green Valley Shuttle, currently provides free group trips on Sundays to Four Seasons residents. As mentioned above, any taxi company selected to participate would need to understand ADA requirements and other funding-related guidelines and regulations to provide service, as well as be willing and able to provide a high standard of customer service and to monitor and report on the service. A lack of these abilities has been the downfall of many taxi voucher programs. It would therefore be critical that a clear and precise contract be developed for the voucher program.

Taxi Vouchers for ADA-Eligible Passengers

Under this alternative, the taxi voucher coupons would be available to ADA-eligible individuals only. Per the discussion above, a $12.00 flat rate would be paid to the taxi provider for all trips within El Dorado Hills. A reasonable fare in light of other services provided by El Dorado Transit would be $2.50 per passenger-trip. The remaining $9.50 subsidy per passenger trip would be paid to the taxi service contractor(s) by El Dorado Transit. The taxi service would be available

during the same hours as typical local El Dorado Transit services, which is 7:00 AM to 6:00 PM Monday through Friday and 9:00 AM to 5:00 PM Saturdays.

In general, transit systems experience less ridership through voucher programs than they do through dial-a-ride programs, but often that is because taxi vouchers are used as a supplement to dial-a-ride or fixed route service. A reasonable estimate for El Dorado Hills would be an annual ridership of 3,000 passenger trips. The subsidized fare would therefore cost $28,500, with passengers paying $7,500. The management costs would be an estimated $5,800 annually for grant administration and $10,100 annually to review voucher use, monitor sales and review records (based on Sunline Transit's experience of spending 24 hours per month to review 300 voucher uses monthly). Printing vouchers would cost an estimated $6,000 annually.

In sum, at a ridership of 3,000 taxi trips annually, this program would have a $57,900 annual operating cost and with passengers paying $7,500 in fares, for an annual subsidy of $50,400, as shown in Table 53.

Taxi Vouchers for General Public

As with the ADA voucher program, it is very difficult to predict the ridership that would be generated by a taxi voucher program for the general public. The most likely users of this program would be households with zero vehicles or low income individuals. A reasonable estimate for El Dorado Hills, based upon ridership at other existing voucher programs that serve the general public, would be an annual ridership of 3,000 ADA-eligible trips and 3,000 general public passenger trips. The subsidized fare would therefore cost $49,500, with passengers paying $22,500. This assumes a fare of $5.00 per one-way trip for general public passengers. The management costs would be an estimated $5,800 annually for grant administration and $20,200 annually to review voucher use, monitor sales and review records. Printing vouchers would cost an estimated $12,000 annually. In all, at a ridership of 6,000 taxi trips annually, this program would have a $110,000 annual operating cost and with passengers paying $22,500 in fares, for an annual subsidy of $87,500, as shown in Table 53.

Additional Day of Sac-Med Service Each Week

The 2-days-a-week Sac-Med service provides an important function in meeting the Non-Emergency Medical Transportation (NEMT) needs of Western El Dorado County residents. While ridership has decreased somewhat over the last several years, implementation of the Affordable Care Act on the national level and the Covered California program statewide may result in higher demand for this service over the next few years. Expansion to a third day of service would incur an operating cost of $32,100 per year. Some of the ridership on this additional day of service would consist of those otherwise riding on the existing Tuesday and Thursday services. Overall, a conservative estimate is that this alternative would serve an additional 200 passenger-trips per year. Subtracting $1,700 in new fares, this option would require $30,400 in additional subsidy revenues each year.

Volunteer Transportation Program

Another means of expanding mobility in a community is through a volunteer transportation program. There are several good examples of volunteer programs in the region:

TABLE 53: EDCTA Rural, Dial-A-Ride and Commuter Service Alternatives

FY 2014-2015 Ridership and Cost Analysis

	Operating Characteristics							Ridership Impact (One-Way Trips)		Annual	
Alternative	Vehicles Required [1]	Total Daily Veh Miles	Total Veh Hours	Operating Days2	Total Annual Vehicle Miles	Total Annual Vehicle Hours	Operating Cost[3]	Daily	Annual	Farebox Revenue	Subsidy Required
Rural and Dial-A-Ride Alternatives											
Georgetown – Cool – Auburn Service	0	160	5.0	52	8,320	260	$25,100	25	1,300	$6,400	$18,700
Placerville -- South Lake Tahoe Service	1	280	8.0	307	85,960	2,456	$246,300	28	8,500	$85,000	$161,300
Extend Dial-A-Ride Service from 5 PM to 8 PM, 7 Days a Week	0		3.0	352	21,880	1,056	$86,300	5	1,700	$4,500	$81,800
Reduce DAR Fare for Western US 50 Corridor to Zone A Rate	1			250	44,566	1,955	$165,100	6	1,600	-$2,500	$167,600
Reduce DAR Fare for All US 50 Corridor to Zone A Rate	1			250	61,539	2,700	$227,900	9	2,200	-$3,700	$231,600
Expand Dial A Ride	2	--	12.0	250	62,158	3,000	$245,200	29	7,300	$19,500	$225,700
El Dorado Hills Taxi Voucher Program, ADA-eligible Only	--				--	--	$57,900	12	3,000	$7,500	$50,400
El Dorado Hills Taxi Voucher Program, General Public	--				--	--	$110,000	24	6,000	$22,500	$87,500
Provide Sac-Med Service One Additional Day per Week	0				8,309	282	$26,300	4	200	$1,700	$24,600
Commuter Alternatives											
Add 1 AM and 1 PM Commuter Runs	1	93	6.4	250	23,250	1,604	$118,100	57	14,100	$79,800	$38,300
Reinstate Commuter Service to Rancho Cordova	2	--	8.0	250	88,921	1,656	$206,300	15	3,800	$8,700	$197,600
Serve Stop in Rancho Cordova on 4 Runs per Day	0	3	0.4	250	700	92	$5,900	4	1,100	$2,500	$3,400
Reduce Runs Serving Rodeo Lot by 2 AM and 2 PM	0	-5	-0.4	250	-1,370	-100	-$7,300	0	0	$0	-$7,300

Note 1: Excluding spares, which can only be calculated for the system as a whole.
Note 2: Assumes 250 weekdays and 51 Saturdays of service.

Source: LSC Transportation Consultants, Inc.

- Senior Services, Inc. is a non-profit organization in Amador County that assists seniors throughout the county, including a transportation program called "Common Grounds," which uses volunteers with private cars to transport clients locally for medical trips. Currently, the program has ten volunteer drivers. A lift-equipped van is also available to provide trips (with advance notice), but most of the trips are provided with volunteer vehicles. The transportation is funded through an Area 12 Agency on Aging grant.

- The Amador Sheriff's Posse Volunteer Transportation program is a senior outreach program operated by the Sheriff's Department, with eight volunteers. Volunteers either use their own private vehicles or a donated sedan to provide medical trips. The costs of operating the vehicle are absorbed by the County Sheriff's Department budget. While they receive calls daily for requested trips, they are only able to provide between two and four trips per week. In addition to seniors, they receive trip requests from Adult Protective Services and other social service programs.

- Nevada County's Telecare program is a non-profit transportation provider which has a DAR service within the County, but relies on volunteers for long-distance trips outside of the service area. The client is charged $0.55 per mile. The driver is reimbursed at $0.40 per mile, which more or less pays for the vehicle cost. Telecare receives $0.15 per mile for administrative costs, which includes dispatching and managing the volunteers. This service is therefore paid for by the client, with the volunteer donating his or her time. There have been as many as twelve volunteer drivers in recent years, but currently there are six. Virtually all of the trips provided by the volunteer program are for medical appointments primarily in Roseville or Sacramento.

Volunteer programs are particularly effective for social service program site transportation (such as to and from a senior center), as it is easier to motivate drivers to provide transportation to those that they already know through the program. It is important to note that a volunteer transportation program is typically not completely "free" to a public transit agency, due to the staff time needed to organize the program. In particular, there is a need for ongoing efforts to recruit new drivers, as there is typically a high rate of turnover in volunteers. Another issue is that of liability. Accidents on the part of volunteer drivers can potentially make the organizing agency liable. It is therefore important for the agency to screen potential volunteers for clean driving records and ongoing proof of insurance. This is also a reason why most volunteer transportation programs are organized through a non-profit organization that already has an ongoing volunteer program for other purposes, rather than through a public transit agency.

COMPARISON OF SHORT-RANGE SERVICE ALTERNATIVES

This section presents a comparison of the various alternatives discussed above, as measured by a series of performance indicators. Not all of the indicators are applicable to each alternative; for instance, it is impossible to consider the marginal one-way passenger-trips per hour of service for an alternative that does not change the number of hours of service.

Figure 31 presents a simple comparison of the impact of the various alternatives on annual ridership levels. As shown in this figure and Table 54, the highest potential for increasing ridership is the US 50 Express plan (with hourly US 50 corridor service), generating 32,100

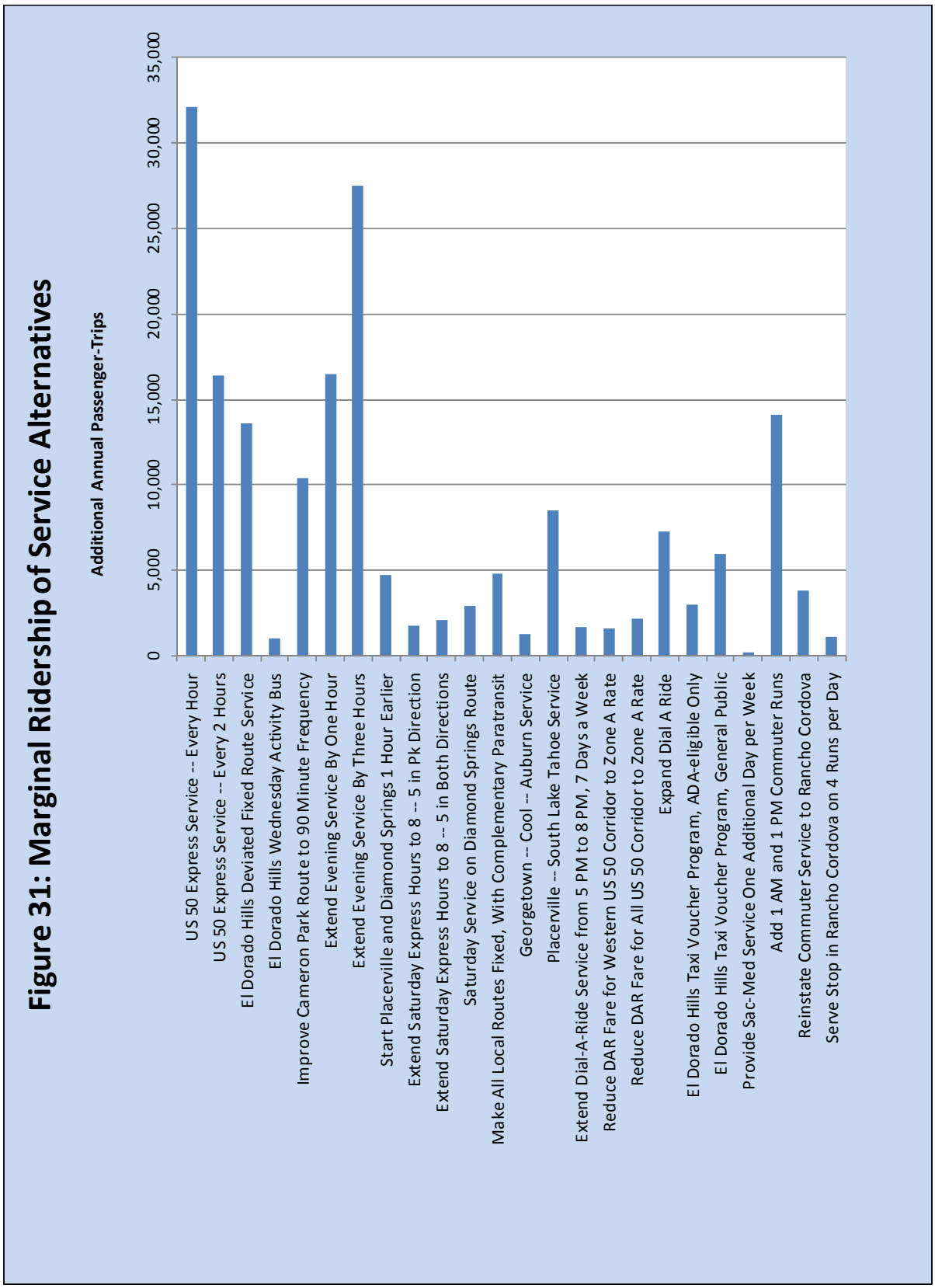


Figure 31: Marginal Ridership of Service Alternatives
Additional Annual Passenger-Trips
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
US 50 Express Service -- Every Hour
US 50 Express Service -- Every 2 Hours
El Dorado Hills Deviated Fixed Route Service
El Dorado Hills Wednesday Activity Bus
Improve Cameron Park Route to 90 Minute Frequency
Extend Evening Service By One Hour
Extend Evening Service By Three Hours
Start Placerville and Diamond Springs 1 Hour Earlier
Extend Saturday Express Hours to 8 -- 5 in Pk Direction
Extend Saturday Express Hours to 8 -- 5 in Both Directions
Saturday Service on Diamond Springs Route
Make All Local Routes Fixed, With Complementary Paratransit
Georgetown -- Cool -- Auburn Service
Placerville -- South Lake Tahoe Service
Extend Dial-A-Ride Service from 5 PM to 8 PM, 7 Days a Week
Reduce DAR Fare for Western US 50 Corridor to Zone A Rate
Reduce DAR Fare for All US 50 Corridor to Zone A Rate
Expand Dial A Ride
El Dorado Hills Taxi Voucher Program, ADA-eligible Only
El Dorado Hills Taxi Voucher Program, General Public
Provide Sac-Med Service One Additional Day per Week
Add 1 AM and 1 PM Commuter Runs
Reinstate Commuter Service to Rancho Cordova
Serve Stop in Rancho Cordova on 4 Runs per Day

TABLE 54: Service Alternative Performance Analysis

Alternative	Additional Vehicles Required	Annual Marginal Values: Vehicle Miles	Vehicle Hours	Cost	Ridership	Fares	Subsidy	Performance Measure: Passenger-Trips per Vehicle-Hour	Passenger-Trips per Vehicle-Mile	Subsidy per Passenger-Trip	Marginal Farebox Return Ratio
US 50 Express Service -- Every Hour	1	132,518	4,720	$471,600	32,100	$74,100	$397,500	6.8	0.24	$12.38	15.7%
US 50 Express Service -- Every 2 Hours	0	41,146	1,695	$187,100	16,400	$41,100	$146,000	9.7	0.40	$8.90	22.0%
El Dorado Hills Deviated Fixed Route Service	2	70,800	4,250	$324,900	13,600	$16,000	$308,900	3.2	0.19	$22.71	4.9%
El Dorado Hills Wednesday Activity Bus	0	8,000	416	$33,200	1,040	$2,500	$30,700	2.5	0.13	$29.52	7.5%
Improve Cameron Park Route to 90 Minute Frequency	1	48,000	2,098	$177,300	10,400	$12,800	$164,500	5.0	0.22	$15.82	7.2%
Extend Evening Service By One Hour	1	33,400	2,083	$157,600	16,500	$19,800	$137,800	7.9	0.49	$8.35	12.6%
Extend Evening Service By Three Hours	0	99,900	5,083	$408,400	27,500	$34,700	$373,700	5.4	0.28	$13.59	8.5%
Start Placerville and Diamond Springs 1 Hour Earlier	0	12,600	917	$66,600	4,700	$4,800	$61,800	5.1	0.37	$13.15	7.2%
Extend Saturday Express Hours to 8 -- 5 in Pk Direction	0	4,300	216	$17,400	1,800	$2,200	$15,200	8.3	0.42	$8.44	12.6%
Extend Saturday Express Hours to 8 -- 5 in Both Directions	0	6,500	324	$26,200	2,100	$2,500	$23,700	6.5	0.32	$11.29	9.5%
Saturday Service on Diamond Springs Route	0	6,900	432	$32,600	2,900	$2,600	$30,000	6.7	0.42	$10.34	8.0%
Make All Local Routes Fixed, With Complementary Paratransit	2	64,200	3,100	$253,300	4,800	$9,600	$243,700	1.5	0.07	$50.77	3.8%
Georgetown -- Cool -- Auburn Service	0	8,320	260	$25,100	1,300	$6,400	$18,700	5.0	0.16	$14.38	25.5%
Placerville -- South Lake Tahoe Service	1	85,960	2,456	$246,300	8,500	$85,000	$161,300	3.5	0.10	$18.98	34.5%
Extend Dial-A-Ride Service from 5 PM to 8 PM, 7 Days a Week	0	21,880	1,056	$86,300	1,700	$4,500	$81,800	1.6	0.08	$48.12	5.2%
Reduce DAR Fare for Western US 50 Corridor to Zone A Rate	1	44,566	1,955	$165,100	1,600	-$2,500	$167,600	0.8	0.04	$104.75	-1.5%
Reduce DAR Fare for All US 50 Corridor to Zone A Rate	1	61,539	2,700	$227,900	2,200	-$3,700	$231,600	0.8	0.04	$105.27	-1.6%
Expand Dial A Ride	2	62,158	3,000	$245,200	7,300	$19,500	$225,700	2.4	0.12	$30.92	8.0%
El Dorado Hills Taxi Voucher Program, ADA-eligible Only	--	--	--	$57,900	3,000	$7,500	$50,400	--	--	$16.80	13.0%
El Dorado Hills Taxi Voucher Program, General Public	--	--	--	$110,000	6,000	$22,500	$87,500	--	--	$14.58	20.5%
Provide Sac-Med Service One Additional Day per Week	0	8,309	282	$26,300	200	$1,700	$24,600	0.7	0.02	$123.00	6.5%
Add 1 AM and 1 PM Commuter Runs	1	23,250	1,604	$118,100	14,100	$79,800	$38,300	8.8	0.61	$2.72	67.6%
Reinstate Commuter Service to Rancho Cordova	2	88,921	1,656	$206,300	3,800	$8,700	$197,600	2.3	0.04	$52.00	4.2%
Serve Stop in Rancho Cordova on 4 Runs per Day	0	700	92	$5,900	1,100	$2,500	$3,400	12.0	1.57	$3.09	42.4%
Reduce Runs Serving Rodeo Lot by 2 AM and 2 PM	0	-1,370	-100	-$7,300	0	$0	-$7,300	--	--	--	--

additional passenger-trips per year, followed by three hours of evening service on the local fixed routes (27,500), extending evening service by one hour (16,500), adding one AM and one PM commuter runs (14,100), and El Dorado Hills deviated fixed route service (13,600).

The comparison of annual subsidy requirements, shown in Figure 32, indicates that the most expensive of these alternatives is the US 50 hourly express option ($397,500), followed by full three-hour evening service ($385,100), and the El Dorado Hills deviated fixed route service ($308,900). Other alternatives with relatively high subsidy requirements are the provision of complementary paratransit service for all local fixed routes, reducing DAR fares throughout the US 50 corridor, expanding DAR, and commuter service to Rancho Cordova. Table 54 also presents a series of "performance indicators" for the various service alternatives discussed above and below:

- A key measure of the operating effectiveness of the alternatives is the **marginal one-way passenger-trips per vehicle service-hour**. As shown in Figure 33, of those alternatives that increase both vehicle-hours and ridership, the "best" alternative is adding a Rancho Cordova stop on 2 AM and 2 PM commuter runs (12 passenger-trips per vehicle-hour), followed by the US 50 Express 2-Hour option (9.7), the addition of one AM and one PM commuter run (8.8), extending the hours of Saturday Express service in the peak direction (8.3), and extending the hours of weekday local route service by one hour (7.9). The "worst" alternatives by this specific measure are the options for DAR and Sac-Med service. All of the following alternatives would serve less than 2 passenger-trips per vehicle-hour of service: complementary paratransit service for all local routes, evening DAR service, reduction in DAR fares, and provision of Sac-Med service one additional day per week.

- A similar measure is the **marginal one-way passenger-trips per vehicle service-mile**. The best alternative under this option is serving a stop in Rancho Cordova (1.57 additional passenger-trips for every additional mile operated). Other relatively strong options are the provision of one additional AM and PM commuter run (0.61), extension of evening service by one hour (0.46), Saturday service on the Diamond Springs Route (0.41) and the US 50 Express Service with two-hour service (0.40). On the other hand, the expansion of Sac-Med service would require traveling 50 miles for every net new passenger-trip served.

- Another key measure is the **marginal subsidy per passenger-trip**, as depicted in Figure 34. This directly measures the key "input" to a public transit program (public subsidy funding) against the key "output" (ridership). The "best" values are the lower values approaching zero, representing a relatively low increase in subsidy accompanied by a relatively high increase in ridership. By this measure, the best options consist of the expansion of commuter service by 1 run per day in each direction ($2.72), Rancho Cordova stop on limited commuter runs ($3.09), extending evening service by one hour ($8.57) and the US 50 Express 2-hour option ($8.90). On the other hand, the reduction in DAR fare along the US 50 corridor and the expansion of Sac-Med days of service would incur subsidy increases exceeding $100 for every additional passenger-trip served.

- The **marginal farebox return ratio** performance measure is calculated by dividing the marginal change in farebox revenues by the marginal change in operating costs. This measures the proportion of the operating costs that are covered by passenger revenues. The negative value for the reductions in DAR fares reflect the "worst" value, as it indicates a

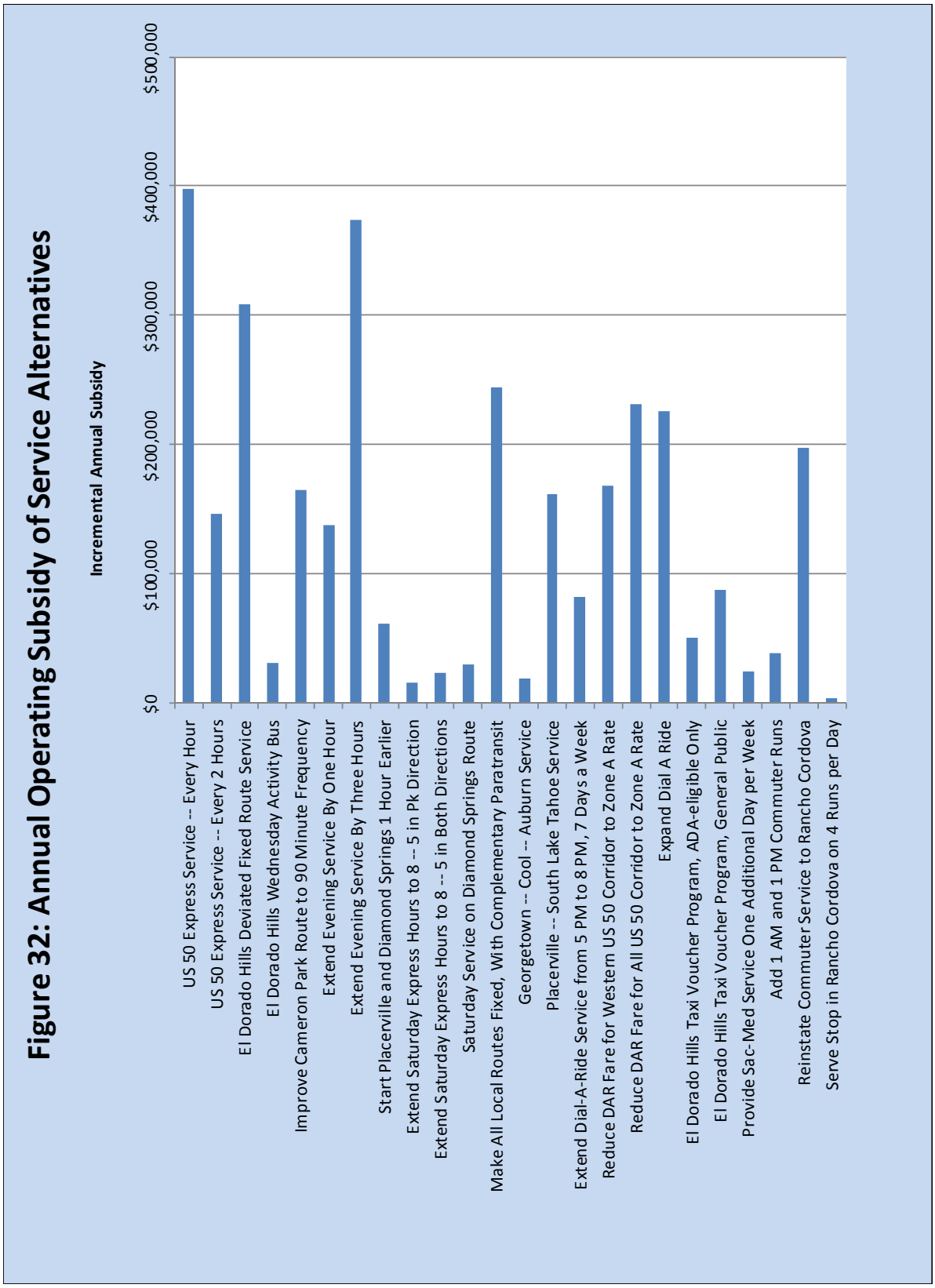


Figure 32: Annual Operating Subsidy of Service Alternatives
Incremental Annual Subsidy
$0
$100,000
$200,000
$300,000
$400,000
$500,000
US 50 Express Service -- Every Hour
US 50 Express Service -- Every 2 Hours
El Dorado Hills Deviated Fixed Route Service
El Dorado Hills Wednesday Activity Bus
Improve Cameron Park Route to 90 Minute Frequency
Extend Evening Service By One Hour
Extend Evening Service By Three Hours
Start Placerville and Diamond Springs 1 Hour Earlier
Extend Saturday Express Hours to 8 -- 5 in Pk Direction
Extend Saturday Express Hours to 8 -- 5 in Both Directions
Saturday Service on Diamond Springs Route
Make All Local Routes Fixed, With Complementary Paratransit
Georgetown -- Cool -- Auburn Service
Placerville -- South Lake Tahoe Service
Extend Dial-A-Ride Service from 5 PM to 8 PM, 7 Days a Week
Reduce DAR Fare for Western US 50 Corridor to Zone A Rate
Reduce DAR Fare for All US 50 Corridor to Zone A Rate
Expand Dial A Ride
El Dorado Hills Taxi Voucher Program, ADA-eligible Only
El Dorado Hills Taxi Voucher Program, General Public
Provide Sac-Med Service One Additional Day per Week
Add 1 AM and 1 PM Commuter Runs
Reinstate Commuter Service to Rancho Cordova
Serve Stop in Rancho Cordova on 4 Runs per Day

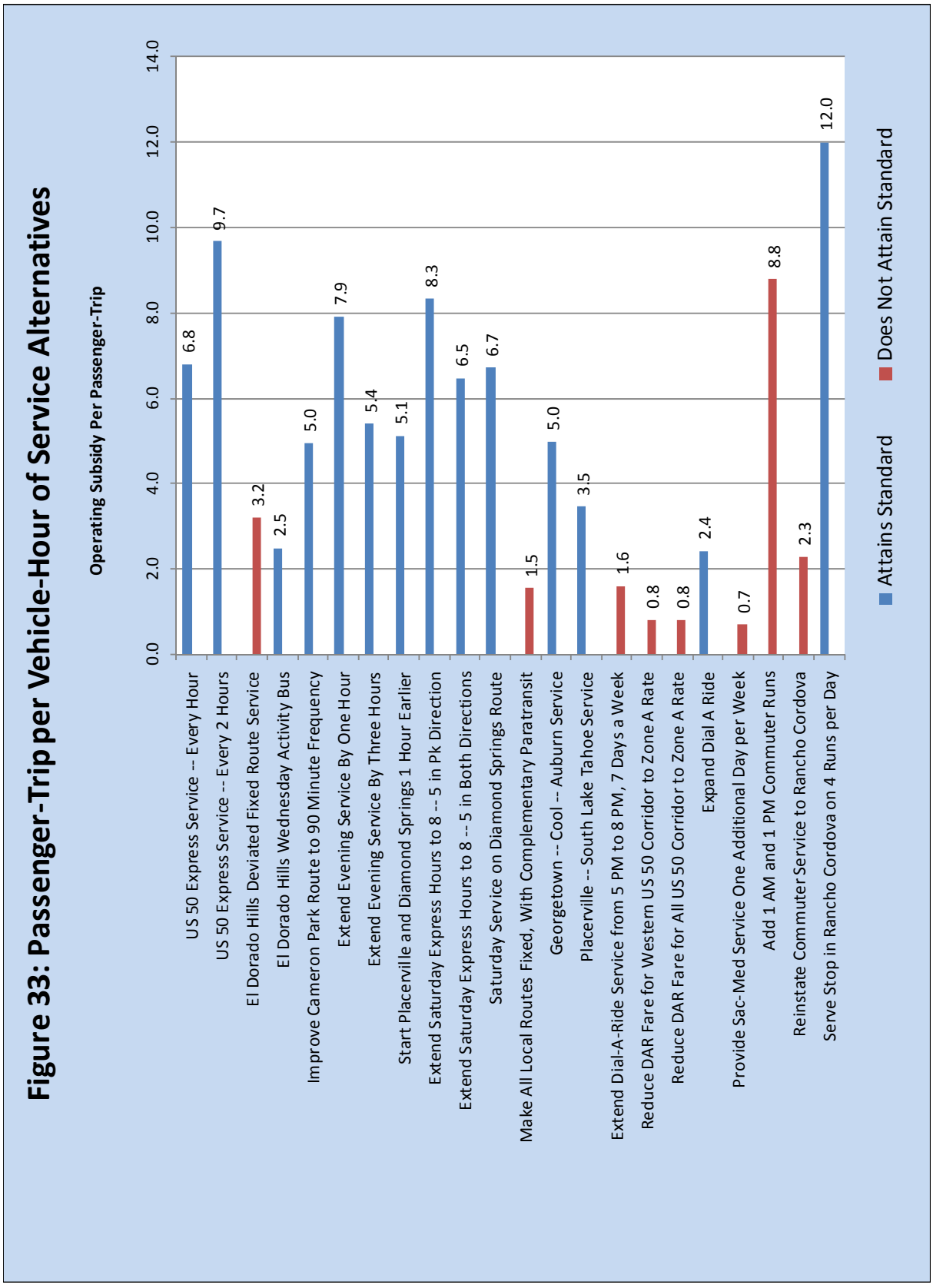


Figure 33: Passenger-Trip per Vehicle-Hour of Service Alternatives
Operating Subsidy Per Passenger-Trip
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
6.8
9.7
3.2
2.5
5.0
7.9
5.4
5.1
8.3
6.5
6.7
1.5
5.0
3.5
1.6
0.8
0.8
2.4
0.7
8.8
2.3
12.0
US 50 Express Service -- Every Hour
US 50 Express Service -- Every 2 Hours
El Dorado Hills Deviated Fixed Route Service
El Dorado Hills Wednesday Activity Bus
Improve Cameron Park Route to 90 Minute Frequency
Extend Evening Service By One Hour
Extend Evening Service By Three Hours
Start Placerville and Diamond Springs 1 Hour Earlier
Extend Saturday Express Hours to 8 -- 5 in Pk Direction
Extend Saturday Express Hours to 8 -- 5 in Both Directions
Saturday Service on Diamond Springs Route
Make All Local Routes Fixed, With Complementary Paratransit
Georgetown -- Cool -- Auburn Service
Placerville -- South Lake Tahoe Service
Extend Dial-A-Ride Service from 5 PM to 8 PM, 7 Days a Week
Reduce DAR Fare for Western US 50 Corridor to Zone A Rate
Reduce DAR Fare for All US 50 Corridor to Zone A Rate
Expand Dial A Ride
Provide Sac-Med Service One Additional Day per Week
Add 1 AM and 1 PM Commuter Runs
Reinstate Commuter Service to Rancho Cordova
Serve Stop in Rancho Cordova on 4 Runs per Day
Attains Standard
Does Not Attain Standard

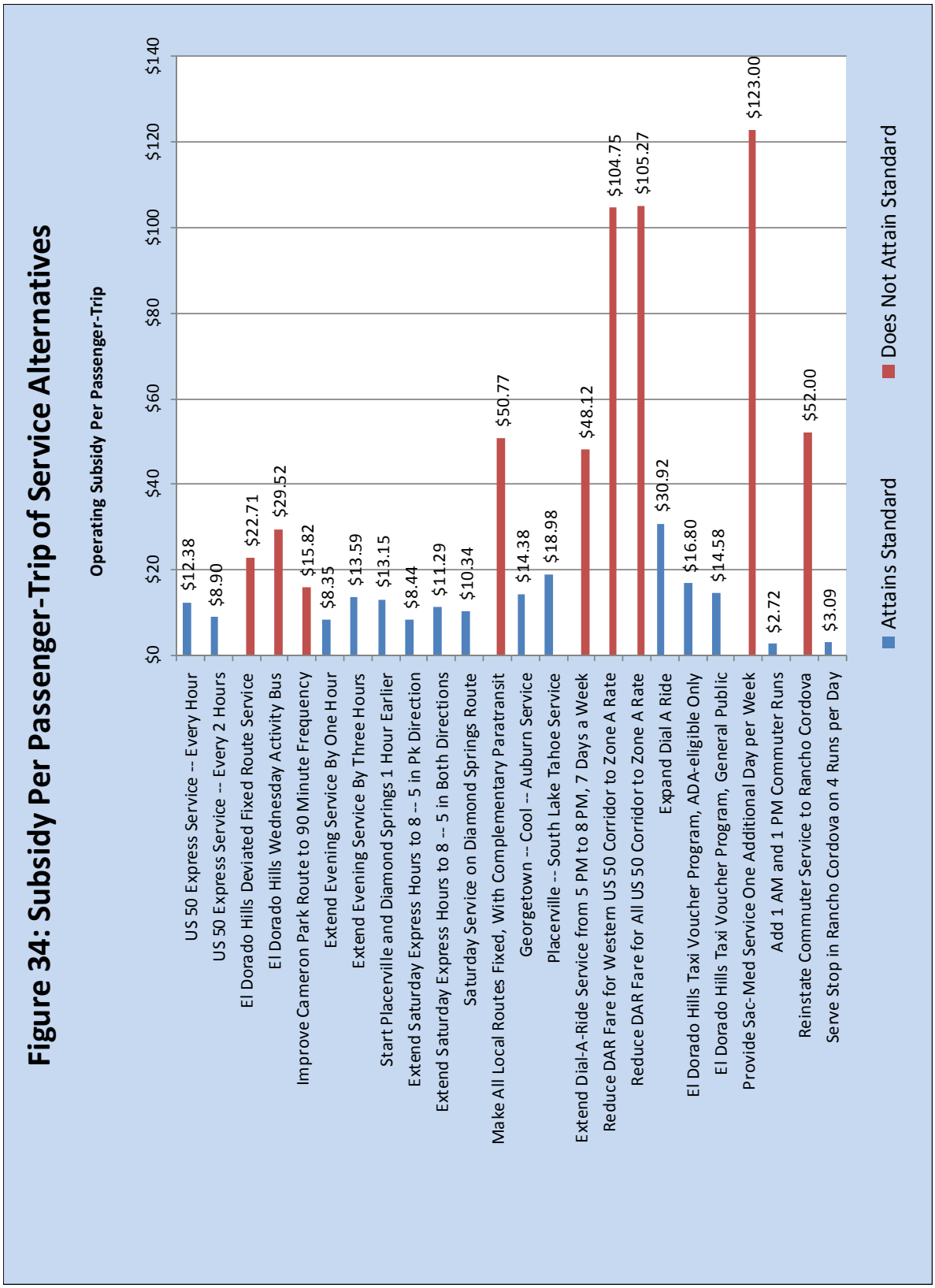


Figure 34: Subsidy Per Passenger-Trip of Service Alternatives
Operating Subsidy Per Passenger-Trip
$0
$20
$40
$60
$80
$100
$120
$140
$12.38
$8.90
$22.71
$29.52
$15.82
$8.35
$13.59
$13.15
$8.44
$11.29
$10.34
$50.77
$14.38
$18.98
$48.12
$104.75
$105.27
$30.92
$16.80
$14.58
$123.00
$2.72
$52.00
$3.09
US 50 Express Service -- Every Hour
US 50 Express Service -- Every 2 Hours
El Dorado Hills Deviated Fixed Route Service
El Dorado Hills Wednesday Activity Bus
Improve Cameron Park Route to 90 Minute Frequency
Extend Evening Service By One Hour
Extend Evening Service By Three Hours
Start Placerville and Diamond Springs 1 Hour Earlier
Extend Saturday Express Hours to 8 -- 5 in Pk Direction
Extend Saturday Express Hours to 8 -- 5 in Both Directions
Saturday Service on Diamond Springs Route
Make All Local Routes Fixed, With Complementary Paratransit
Georgetown -- Cool -- Auburn Service
Placerville -- South Lake Tahoe Service
Extend Dial-A-Ride Service from 5 PM to 8 PM, 7 Days a Week
Reduce DAR Fare for Western US 50 Corridor to Zone A Rate
Reduce DAR Fare for All US 50 Corridor to Zone A Rate
Expand Dial A Ride
El Dorado Hills Taxi Voucher Program, ADA-eligible Only
El Dorado Hills Taxi Voucher Program, General Public
Provide Sac-Med Service One Additional Day per Week
Add 1 AM and 1 PM Commuter Runs
Reinstate Commuter Service to Rancho Cordova
Serve Stop in Rancho Cordova on 4 Runs per Day
Attains Standard
Does Not Attain Standard

reduction in farebox revenues over an increase in operating costs. Other relatively poor alternatives by this measure include complementary paratransit service supporting all local routes (3.8 percent), commuter service to Rancho Cordova (4.2 percent) and El Dorado Hills deviated fixed route service (4.9 percent). The "best" alternatives consist of one additional AM and PM commuter run (67.6 percent), serving a Rancho Cordova stop on limited commuter runs (42.4 percent), and service to South Lake Tahoe (34.5 percent).

As it would be possible to expand the hours of operation of some but not all of the local routes, a detailed review was conducted of the "span of service" local route options by individual route, as shown in Table 55. Note that the expansion of complementary paratransit service is included with the Placerville Route figures, as this service supports the fixed Placerville Route service. This table reflects that extending the hours of the Diamond Springs Route is the most effective, followed by the Pollock Pines Route, then the Placerville Route, with the Cameron Park Route with the poorest performance measures.

An overall assessment of financial impact also requires consideration of capital needs. The greatest increase in fleet size would be required for the El Dorado Hill fixed route alternative, providing complementary paratransit service throughout the local fixed route area, expanding DAR, and Rancho Cordova commuter service, all which would require two additional vehicles. A number of alternatives would not require additional vehicles (such as evening, Sunday or earlier service), as they would use existing vehicles during times when they are not currently in use.

A review of the overall performance analysis information yields the following overall conclusions:

- A taxi voucher program is a more cost-effective means of providing transit service in El Dorado Hills than is a fixed route service.

- Extending the hours of Saturday Express service is a relatively good alternative.

- Extending Local Route service in the evening is more effective than starting service earlier in the morning.

- Reduction in DAR fares, complementary paratransit service throughout the Local Route service area, and expansion of Sac-Med days of service would be particularly inefficient use of public funds.

- Serving a Rancho Cordova stop on two AM and two PM runs performs well under all measures.

- The US 50 Express service also performs well under all measures, particularly if limited to one vehicle on the Express Route providing service every two hours.

- Reducing service to the Rodeo Lot is an overall (slight) benefit, in that it reduces operating costs and reducing in-vehicle travel time for passengers traveling through Cameron Park, with no significant impact on overall ridership.

TABLE 55: Local Route Hours of Service Alternatives Performance Analysis by Route

	Annual Marginal Values						Performance Measure			
Alternative	Vehicle Miles	Vehicle Hours	Cost	Ridership	Fares	Subsidy	Passenger-Trips per Vehicle-Hour	Passenger-Trips per Vehicle-Mile	Subsidy per Passenger-Trip	Marginal Farebox Return Ratio
Extend Evening Service By One Hour										
Placerville/Complementary DAR	9,600	750	$53,600	5,200	$6,800	$46,800	6.9	0.54	$9.00	12.7%
Diamond Springs	4,000	250	$18,900	3,300	$3,000	$15,900	13.2	0.83	$4.82	15.9%
Pollock Pines	10,300	500	$40,800	5,800	$7,300	$33,500	11.6	0.56	$5.78	17.9%
Cameron Park	9,500	583	$44,300	2,200	$2,700	$41,600	3.8	0.23	$18.91	6.1%
Total	33,400	2,083	$157,600	16,500	$19,800	$137,800	7.9	0.49	$8.35	12.6%
Extend Evening Service By Three Hours										
Placerville/Complementary DAR	28,700	2,250	$160,600	10,600	$15,400	$145,200	4.7	0.37	$13.70	9.6%
Diamond Springs	11,900	750	$56,600	5,000	$4,500	$52,100	6.7	0.42	$10.42	8.0%
Pollock Pines	30,800	1,500	$122,200	8,300	$10,400	$111,800	5.5	0.27	$13.47	8.5%
Cameron Park	28,500	583	$69,000	3,600	$4,400	$64,600	6.2	0.13	$17.94	6.4%
Total	99,900	5,083	$408,400	27,500	$34,700	$373,700	5.4	0.28	$13.59	8.5%
Start Placerville and Diamond Springs 1 Hour Earlier										
Placerville/Complementary DAR	8,600	667	$47,700	2,700	$3,000	$44,700	4.1	0.31	$16.56	6.3%
Diamond Springs	4,000	250	$18,900	2,000	$1,800	$17,100	8.0	0.50	$8.55	9.5%
Total	12,600	917	$66,600	4,700	$4,800	$61,800	5.1	0.37	$13.15	7.2%

These performance indicators should be studied carefully before deciding which, if any, of these service alternatives should be implemented in the short or long term. The relative effectiveness of each service needs to be weighed against their ability to achieve the overall goals of the transit service and against funding limitations.

This page left intentionally blank.

Chapter 6
Long-Range Forecast of Transit Conditions

Due to the many "unknowns" associated with long-range projections, it is appropriate to consider long-range future conditions from a more general level (focusing on general services, rather than specific route details) than is considered for the short-range alternatives. Using the forecasts in transit demand presented in Chapter 4, transit ridership, service, and financial forecasts can be established. Specifically, demand forecasts are applied to existing EDT ridership levels to estimate future ridership estimates. These estimates in turn are used to forecast service, fleet, and financial requirements.

These forecasts are based on the following assumptions:

- Population and employment within Western El Dorado County will grow in accordance with County projections
- Commuting from Western El Dorado County to other portions of the Sacramento Region will change in accordance with SACOG travel demand projections.
- There will be no significant changes in external factors such as fuel costs or parking charges that would reduce the relative attractiveness of the transit mode in comparison with the private automobile.

As is typical for long-range forecasts, this analysis does not consider the impacts of inflation (either on transit costs or on passenger revenues), but rather is conducted in current dollars. This provides a clearer indication of overall future financial conditions, not clouded by assumptions regarding future inflation rates.

Ridership Forecasts

As shown in Table 56, it is assumed that realized ridership on each of the various services will vary with the following parameters:

- Sacramento Commuter ridership will vary with Home-Based Work (HBW) person-trips between Western El Dorado County residential areas and downtown Sacramento, as forecast by SACOG.
- Ridership between Western El Dorado County and areas along the US 50 corridor between Folsom and east Sacramento will vary with the HBW person-trips between the two areas forecast by SACOG.
- Local Fixed Route ridership will vary with general public non-program and urban area transit demand, which in turn is a function of Western El Dorado County demographic forecast.
- Dial-A-Ride ridership will vary with ADA transit demand.
- Social Service ridership will vary with program transit demand.

TABLE 56: Analysis of Long-Range 2025 El Dorado Transit Ridership

	Sacramento Commuter	Iron Point Connector/US 50 Corridor	Local Fixed Route (1)	Dial-A-Ride (2)	Social Service	Total EDT
Demand Parameter	El Dorado -- Downtown Commute Demand	El Dorado -- US 50 Corridor Folsom to E. Sacramento Commute Demand	Urban and Rural Non-Program Demand	ADA Demand	Program Demand	
Demand Parameter Value						
2013	182,700	51,300	469,200	133,500	479,400	
2018	185,800	54,700	517,200	147,000	527,900	
2020	187,000	56,100	533,600	152,600	548,100	
2025	189,500	59,500	580,300	173,000	621,200	
2030	191,500	62,900	630,900	195,000	700,300	
2035	193,000	66,300	683,100	214,000	768,500	
Annual Ridership						
2013	134,100	9,800	209,900	27,100	33,800	414,700
2018 (3)	136,400	10,400	254,100	29,800	37,200	467,900
2020	137,300	20,000	261,500	30,900	38,600	488,300
2025	139,100	20,600	282,400	35,000	43,700	520,800
2030	140,600	21,300	305,000	39,500	49,300	555,700
2035	141,700	21,900	328,300	43,300	54,100	589,300
Change over 2013						
2018	2,300	600	44,200	2,700	3,400	53,200
2020	3,200	10,200	51,600	3,800	4,800	73,600
2025	5,000	10,800	72,500	7,900	9,900	106,100
2030	6,500	11,500	95,100	12,400	15,500	141,000
2035	7,600	12,100	118,400	16,200	20,300	174,600
Percent Change over 2013						
2018	1.7%	6.1%	21.1%	10.0%	10.1%	12.8%
2020	2.4%	104.1%	24.6%	14.0%	14.2%	17.7%
2025	3.7%	110.2%	34.5%	29.2%	29.3%	25.6%
2030	4.8%	117.3%	45.3%	45.8%	45.9%	34.0%
2035	5.7%	123.5%	56.4%	59.8%	60.1%	42.1%

Note 1: Including Seasonal Fixed Route Service and Grizzly Flat

Note 2: Including Sac-Med

Note 3: Includes full US 50 Express service by 2020.

Note that the special services (Apple Hill® Shuttle, Fair Shuttle) and Grizzly Flat are included in the local fixed route total, while the Sac-Met ridership is included in the Dial-A-Ride figures.

Ridership forecasts were made by factoring existing ridership by the proportionate change in the value of the appropriate design parameter. In addition, the ridership benefits of the full implementation of the US 50 Express service are assumed to be generated by 2020.

As presented in Table 56 and depicted in Figure 35, overall system ridership is forecast to increase by 42 percent between 2013 and 2035. Much of this growth is expected to occur in the next 12 years: ridership is forecast to grow by 13 percent between 2013 and 2035, or a total of 53,200 additional annual passenger-trips. By service, the largest numeric growth between 2013 and 2035 (118,300 annual passenger-trips, or 68 percent of the total growth) is forecast to occur on the local fixed-route services. On a percentage basis, the greatest growth will occur in the US 50 corridor (124 percent) followed by the Dial-A-Ride service and the Social Service transportation programs, which will increase by 60 percent. In comparison, the Sacramento Commuter ridership will grow at a more modest rate of 6 percent over the 22 years.

Service Level and Financial Forecasts

As shown in the top portion of Table 57, the farebox revenues generated by each service can be estimated from the ridership forecasts, and assuming that the average fare revenue per one-way passenger-trip (exclusive of inflation) remains constant. Overall, fare revenues are forecast to increase by $449,200 per year, equivalent to a 33 percent increase over 2013 levels.

It is next necessary to estimate annual vehicle service hour levels that would be required. For Dial-A-Ride service and Social Service programs, any significant change in passenger demand will generate a proportionate change in vehicle-hours of service. For the other existing services, estimates were made of the proportion of available capacity – the level of ridership increase that could be accommodated within existing service levels, based upon existing ridership and capacity. It is expected that half-hourly local fixed-route service will start to be implemented by 2025, with half-hourly service on half of the local schedules by 2035. In addition, the increase of annual vehicle service hours associated with one additional AM and PM commuter run and the full implementation of the US 50 Express services 37 were included. As also indicated in Table 57, vehicle service hours would increase by 23,600 per year or 53 percent over existing levels. The largest proportion of this (10,600 vehicle-hours) is forecast to consist of expansion in the DAR and Social Service programs, as reflected in Figure 36.

Operating costs associated with each service were then estimated by factoring the existing operating cost by the growth in vehicle hours identified for each service. Overall annual operating costs are forecast to increase by $1,947,100 between 2013 and 2035 (exclusive of inflation), or a 35 percent increase over current levels. Of this total, the largest proportions are the $880,900 associated with expanded DAR and Social Service programs. By 2035, EDT's operating costs will be on the order of $7,477,900 per year

Subtracting the farebox revenue figures from the operating cost estimates yields the forecasts of operating subsidy requirements. Total annual subsidy is forecast to increase by $1,447,900 over the long-range plan period, or 36 percent over current levels. DAR and Social Service program improvements along with local fixed route improvements are expected to require the bulk of this additional subsidy.

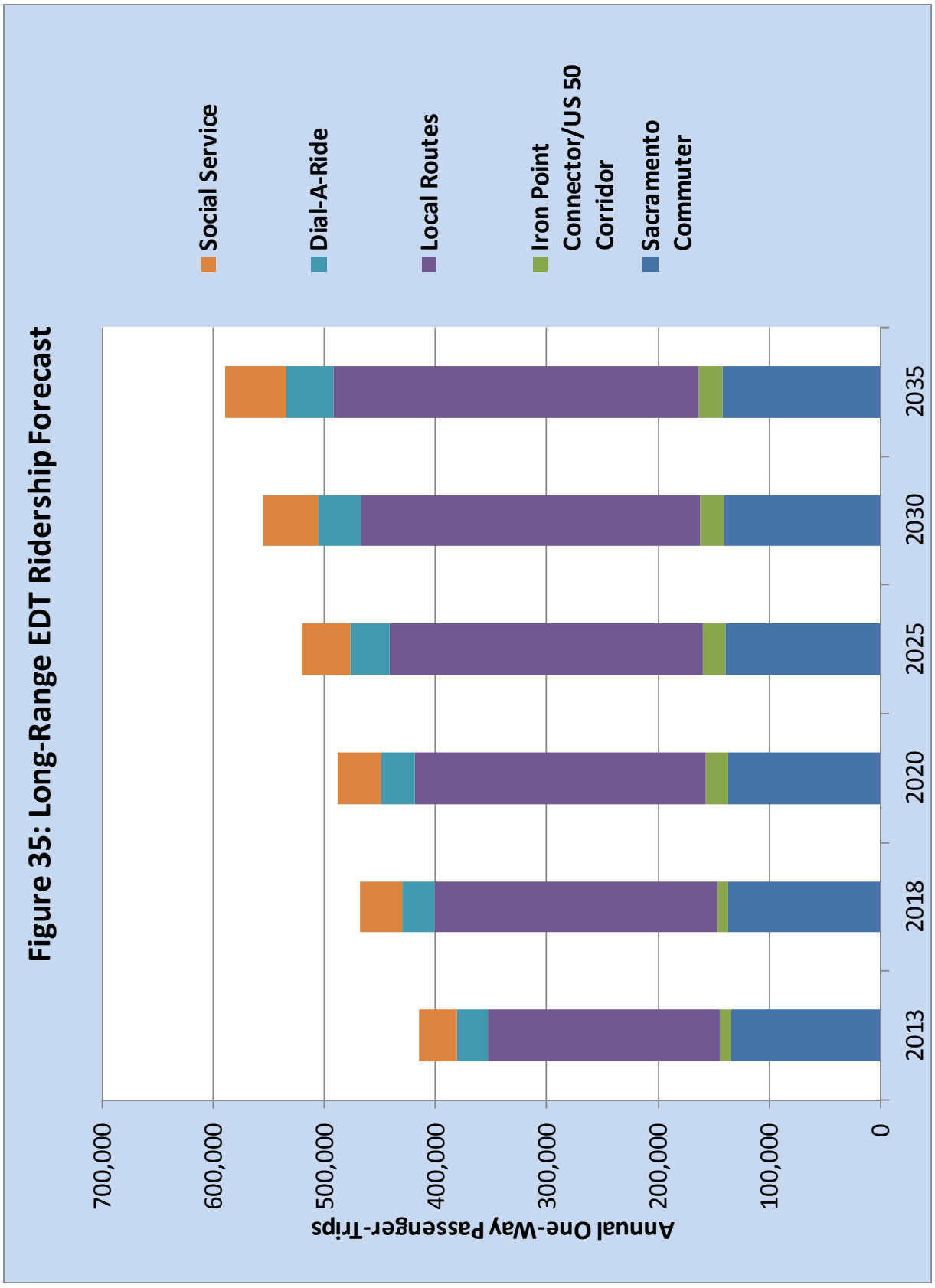


Figure 35: Long-Range EDT Ridership Forecast
Social Service
Dial-A-Ride
Local Routes
Iron Point Connector/US 50 Corridor
Sacramento Commuter
Annual One-Way Passenger-Trips
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
2013
2018
2020
2025
2030
2035

TABLE 57: Analysis of Long-Range EDT Service Requirements

Excluding Impacts of Inflation

	Sacramento Commuter	Iron Point Connector/US 50 Corridor	Local Fixed Route (1)	Dial-A-Ride (2)	Social Service		Total	# Growth Total	% Growth Total
Farebox Revenues									
2013	$ 758,200	$ 21,300	$ 191,600	$ 75,800	$ 460,300		$ 1,507,200	--	--
2018	$ 771,200	$ 22,600	$ 232,100	$ 83,300	$ 506,700		$ 1,615,900	$ 108,700	
2020	$ 776,300	$ 43,400	$ 238,700	$ 86,400	$ 525,700		$ 1,670,500	$ 163,300	11%
2025	$ 786,500	$ 44,700	$ 257,800	$ 97,800	$ 595,200		$ 1,782,000	$ 274,800	18%
2030	$ 794,900	$ 46,200	$ 278,500	$ 110,400	$ 671,500		$ 1,901,500	$ 394,300	26%
2035	$ 801,200	$ 47,500	$ 299,800	$ 121,100	$ 736,800		$ 2,006,400	$ 499,200	33%
Vehicle Hours									
2013	9,100	1,900	16,300	12,500	5,100		44,900	--	--
2018	9,100	1,900	17,200	13,700	5,600		47,500	2,600	6%
2020	9,100	5,800	17,200	14,200	5,800		52,100	7,200	16%
2025	9,100	5,800	19,900	16,100	6,600		57,500	12,600	28%
2030	9,100	5,800	22,600	18,200	7,400	559,100	63,100	18,200	41%
2035	9,100	5,800	25,400	20,000	8,200	$0.39	68,500	23,600	53%
Total Operating Cost						Fixed Costs			
2013	$ 873,400	$ 177,500	$ 1,264,100	$ 1,026,700	$ 433,900	$ 1,755,200	$ 5,530,800	--	--
2018	$ 873,400	$ 177,500	$ 1,331,500	$ 1,126,600	$ 475,900	$ 1,755,200	$ 5,740,100	$ 209,300	4%
2020	$ 873,200	$ 541,800	$ 1,331,500	$ 1,167,700	$ 492,900	$ 1,755,200	$ 6,162,300	$ 631,500	11%
2025	$ 873,200	$ 541,800	$ 1,540,500	$ 1,324,000	$ 560,900	$ 1,755,200	$ 6,595,600	$ 1,064,800	19%
2030	$ 873,200	$ 541,800	$ 1,749,500	$ 1,496,700	$ 628,800	$ 1,755,200	$ 7,045,200	$ 1,514,400	27%
2035	$ 873,200	$ 541,800	$ 1,966,200	$ 1,644,700	$ 696,800	$ 1,755,200	$ 7,477,900	$ 1,947,100	35%
Subsidy Required									
2013	$ 115,200	$ 156,200	$ 1,072,500	$ 950,900	-$ 26,400	$ 1,755,200	$ 4,023,600	--	--
2018	$ 102,200	$ 154,900	$ 1,099,400	$ 1,043,300	-$ 30,800	$ 1,755,200	$ 4,124,200	$ 100,600	3%
2020	$ 96,900	$ 498,400	$ 1,092,800	$ 1,081,300	-$ 32,800	$ 1,755,200	$ 4,491,800	$ 468,200	12%
2025	$ 86,700	$ 497,100	$ 1,282,700	$ 1,226,200	-$ 34,300	$ 1,755,200	$ 4,813,600	$ 790,000	20%
2030	$ 78,300	$ 495,600	$ 1,471,000	$ 1,386,300	-$ 42,700	$ 1,755,200	$ 5,143,700	$ 1,120,100	28%
2035	$ 72,000	$ 494,300	$ 1,666,400	$ 1,523,600	-$ 40,000	$ 1,755,200	$ 5,471,500	$ 1,447,900	36%
Vehicles Required (3)									
2013	14	1	15	8	9		47	--	--
2018	14	2	15	9	10		50	3	6%
2020	14	2	15	9	10		50	3	6%
2025	14	2	17	10	12		55	8	17%
2030	14	2	20	12	13		61	14	30%
2035	14	2	22	13	14		65	18	38%

Note 1: Including Seasonal Fixed Route Service and Grizzly Flat

Note 2: Including Sac-Med

Note 3: Includes 1 additional AM and PM commuter run and full US 50 Express service by 2018.

Note 4: Includes spares.

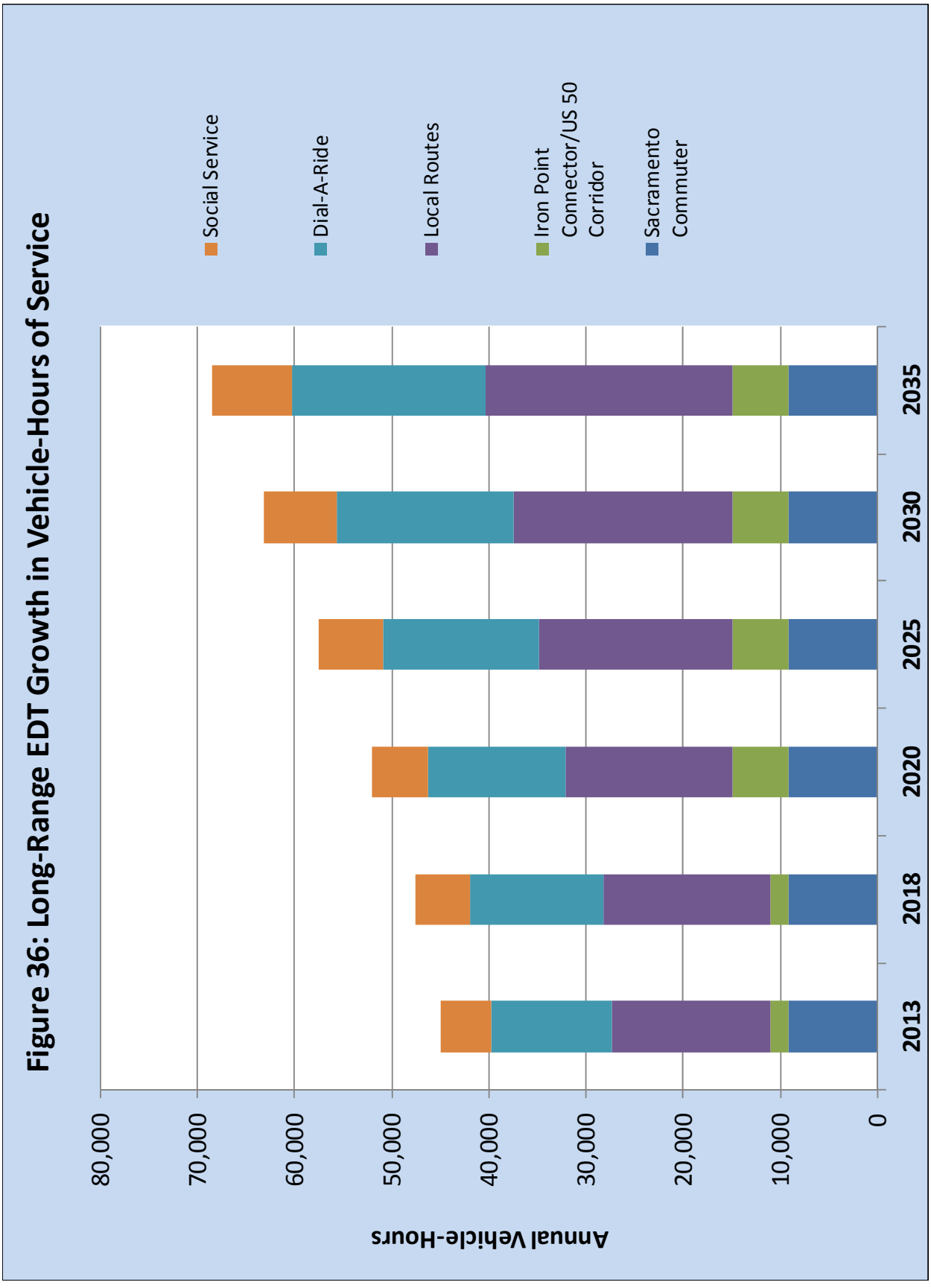


Figure 36: Long-Range EDT Growth in Vehicle-Hours of Service
Social Service
Dial-A-Ride
Local Routes
Iron Point Connector/US 50 Corridor
Sacramento Commuter
Annual Vehicle-Hours
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
2013
2018
2020
2025
2030
2035

Fleet Requirements

Finally, the annual vehicle service hour forecasts can be used to estimate the EDT fleet requirements over the coming 22 years. These figures, as shown in the bottom portion of Table 57 and in Figure 37, include spares. As indicated, the total fleet required to operate all EDT services is forecast to increase from 47 to 65, which is a 38 percent increase in fleet size. By 2035, ten additional DAR/Social Service program vehicles will be needed, along with seven additional fixed route buses, one additional US 50 fixed route bus, and one additional commuter bus. As demand on the Local Routes grows over the long term, moreover, the size of replacement buses will need to increase from the current 26 passenger capacity.

Long-Range Route Revisions

Based on the evaluation of future transit demand and the review of proposed projects and plan documents presented in Chapter 2, the following is a discussion of potential long-range changes in existing routes and services.

Diamond Springs Route

The Diamond Springs Parkway and associated Diamond Dorado Center would provide a major new transit trip destination in Diamond Springs, as well as a new connection between Missouri Flat Road and SR 49. The Diamond Springs Route could be reconfigured to serve this area, based upon specific site plans and a review of running times and route segment productivity.

Cameron Park Route

Two proposed projects in the Cameron Park area could expand the need for local route service. The Village of Marble Valley Specific Plan encompasses 2,341 acres south of US 50 between the Bass Lake Road and Cambridge Road interchanges. Most significantly with regards to transit needs, it includes a village center encompassing 100,000 square feet of potential commercial development and a concentration of medium-to-high density residential (up to 24 units to the acre). It could potentially be served by a 1.7-mile extension of the Cameron Park Route. On the other side of Cameron Park, the Dixon Ranch residential project would provide 605 single family residences, approximately 160 of which would be age restricted. It is located along the south side of Green Valley Road, approximately 3 miles west of the current end of the Cameron Park Route at Cambridge Road.

Southeast Sacramento County Route

Sacramento County and the Capital SouthEast Connector Joint Powers Authority are developing substantial plans for urbanization of the 35-mile corridor connecting El Dorado Hills with Elk Grove. As discussed in Chapter 2, relatively few Western El Dorado County residents currently commute along this corridor (approximately 3 percent of all commuters), and this proportion is not forecast to change significantly. Provision of transit service along this corridor is therefore not a responsibility of El Dorado Transit. However, providing convenient transit connections to new services entering El Dorado Hills along this corridor should be a high priority.

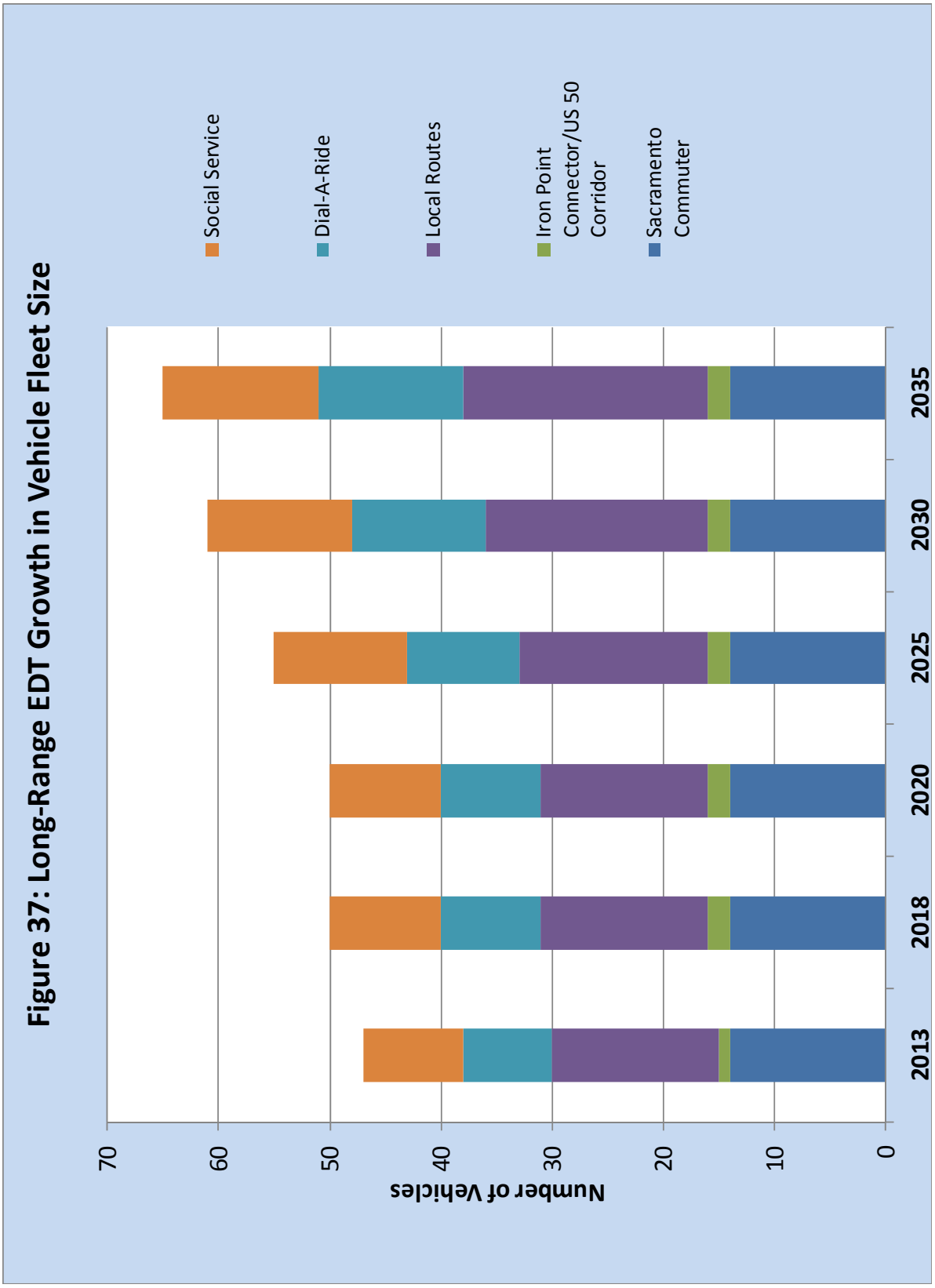


Figure 37: Long-Range EDT Growth in Vehicle Fleet Size
Social Service
Dial-A-Ride
Local Routes
Iron Point Connector/US 50 Corridor
Sacramento Commuter
Number of Vehicles
0
10
20
30
40
50
60
70
2013
2018
2020
2025
2030
2035

El Dorado Hills Route

The El Dorado Hills Community Transit Needs Assessment and Highway 50 Corridor Operations Plan identified that a scheduled route service in El Dorado Hills would not achieve minimum performance standards, at least in the short-term planning period. The County's long-range household forecasts were used to assess long-term (2035) demand potential. It was found that even with future growth, ridership generated by a scheduled service would fall approximately 10 percent below the level needed to meet EDT performance standards. Unless there is a significant external factor that increases transit demand over the long term (such as large increases in fuel costs), a scheduled fixed or deviated service in El Dorado Hills is not recommended.

This page left intentionally blank

Chapter 7
Capital Alternatives

Before transit services can be provided, a myriad of capital items are required. The capital items required for public transit service consist of vehicles, vehicle maintenance facilities, passenger amenities such as shelters and benches, and computer equipment. Indeed, many capital elements will be required to maintain and potentially expand EDT services over the coming years, as discussed below.

Potential Bus Rapid Transit Strategies

Bus Rapid Transit (BRT) is a system of technologies and operating strategies that is rapidly gaining acceptance nationwide. As defined by Wikipedia:

> "*BRT is a term applied to a variety of public transportation systems using buses to provide faster, more efficient service than an ordinary bus line. Often this is achieved by making improvements to existing infrastructure, vehicles and scheduling. The goal of these systems is to approach the service quality of rail transit while still enjoying the cost savings and flexibility of bus transit. At present, 30 full BRT systems are operating in the US, with many other transit services employing elements of BRT."*

Examples of BRT systems in the region include the Sacramento RT's 50 E service along Stockton Boulevard and the Washoe RTC's RAPID bus service along Virginia Street in Reno. "BRT" encompasses a wide range of strategies, ranging from fully separated bus lanes to signal and intersection design strategies to provide less intrusive priority to transit buses.

A variety of land use criteria warranting "Full" BRT with separate travel lanes have been developed by the transit profession. Considering residential densities, *Public Transportation and Land Use Policy*, authored by B. Pushkarev and J. Zupan, identifies a minimum of 12 dwelling units per acre throughout the corridor for rapid transit service. Considering the employment trip generator, the US Department of Transportation recommends a minimum Floor-to-Area Ratio (FAR)[6] of 2.0 for the primary employment district served by BRT. Based on these criteria, development in Western El Dorado County will be substantially below warranting full BRT throughout the long-range planning horizon. However, there are a number of more limited BRT strategies that may be applicable, as discussed below.

BRT in Mixed Travel Lanes

Under this BRT scenario, BRT vehicles operate in mixed travel lanes with auto traffic. The Silver Line connecting El Monte, downtown Los Angeles, and Artesia is one example, while others are found in Reno, Oakland, and Las Vegas. To provide faster and more dependable service, these types of BRT systems typically employ transit signal priority and/or "jump queue" lanes (discussed in greater detail below). The National Cooperative Highway Research Project Report

[6] The Floor to Area Ratio is defined as the total square footage of floor area divided by the square footage of land area. As an example, a four story building with 1,000 square feet of floor area on each floor on a parcel 2,000 square feet in size would have an FAR of 2.0.

155 provides warrant levels for consideration of curb bus-only lanes in roadways that includes mixed (bus and non-bus) traffic. For concurrent bus lanes, a minimum hourly volume of 20 per hour is recommended within Central Business Districts, and 30 buses per hour outside of Central Business Districts.

Transit Signal Priority

Under transit signal priority, a detector is installed (typically a video detector) that is triggered when a transit vehicle approaches the signal. A signal is then sent to the computer controlling the signal, generating a request for priority. The computer then identifies if the request should be accommodated (given pre-determined parameters). A second detector also identifies when the transit vehicle has cleared the intersection. A key consideration is the difference between transit signal **preemption** and transit signal **priority**. Under preemption, a transit vehicle is automatically provided with a green signal indication, regardless of where the signal is in the typical cycle of phases. In comparison, priority reflects a system in which a transit vehicle is provided with a higher percentage of green indications, but is not always provided with a green indication. As signal preemption can substantially impact overall traffic operations, priority is a much more common strategy. Transit signal priority systems can be found along Watt Avenue in Sacramento, as well as at key intersections on the UC Davis campus.

"Jump Queue" Lanes

Jump queue lanes allow buses to bypass traffic queues at traffic signals. This is most beneficial in congested conditions where vehicles cannot pass through a signal in a single cycle. This can take the form of designating existing right-turn lanes as "Right Turn Only – Buses Excepted" in order to allow buses to jump the through traffic queue. Merging back into the through traffic stream can potentially be accomplished by either (1) providing an acceleration lane on the far side of the intersection to allow buses to get up to speed and merge to the left, or (2) providing a special signal indication (and timing phase) to give buses a short head start before the through general traffic movement phase.

Evaluation of BRT Applicability to Western El Dorado County

An important consideration in assessing applicability of BRT is the relatively low level of existing transit service that can be provided given existing operating funding constraints. The key transit routes in the area all operate on only hourly headways. The roadway in the area with the highest volume of bus traffic is Missouri Flat Road north of Forni Road, which carries up to five local route buses per hour in each direction, along with up to 11 commuter buses per day. These figures are far below the minimum levels cited above that would warrant a full BRT program or even a curb bus lane in mixed flow.

A potential but more limited application of BRT strategies would be to implement Transit Signal Preemption and/or Jump Queue Lanes at key intersections near a transit center with a relatively high number of transit movements, such as the following signals:

- Missouri Flat Road / US 50 Westbound
- Missouri Flat Road / US 50 Eastbound
- Missouri Flat Road / Mother Load Drive

- Missouri Flat Road / Forni Road
- El Dorado Hills Boulevard/US 50 Westbound
- Latrobe Road / US 50 Eastbound
- Latrobe Road / Town Center Boulevard
- Latrobe Road / White Rock Road

Signal preemption or jump queues could be warranted at these locations if transit buses are experiencing long traffic delays at these intersections.

While not a full BRT strategy, another element of some BRT programs with potential applicability to the study area would be to modify elements of the US 50 corridor in order to reduce running times on commuter runs. While construction of new ramps or slip lanes for buses would not be warranted, consideration should be given of commuter bus operations and efficient access to/from park-and-ride lots in design of future interchange improvements.

It is also worth noting that Caltrans policies support BRT implementation along California's state highway system. Both Caltrans' *Policy on Bus Rapid Transit Implementation Support* (DP-27) published in 2007 as well as Caltrans' Deputy Directive 98 ("Integrating Bus Rapid Transit into State Facilities") published in 2008 reflect a willingness to support implementation of BRT strategies.

VEHICLE ALTERNATIVES

Vehicle Purchases

As shown in Table 58, in the next five years a total of 21 vehicles will warrant replacement, consisting of 11 buses, 9 minivans, and one staff vehicle. At current prices, these replacements will cost an estimated total of $2,088,000. Based on selection of the service alternatives, a the Capital Plan will identify an appropriate vehicle acquisition schedule.

Retired Van Donation Program

The vehicles that are retired from the EDT fleet could potentially continue to serve mobility needs in Western El Dorado County, if they are provided at minimal cost to local social service agencies. Over the coming five years, EDT will retire a total of 10 specialized transit vans. Typically, retired vehicles are sold in the open market.

Recently, several transit agencies have implemented van grant programs to qualifying organizations in order to enhance local transportation options. As an example, Contra Costa Transit Authority has donated several paratransit vans to community based organizations. Contra Costa Transit Authority's "Community Connections Van Grant Program" is particularly applicable to El Dorado Transit. The program is multipurpose: dispose of old paratransit vans while providing community human service organizations the resources to offer transportation to clients who would otherwise ride the local ADA paratransit service. The following summarizes requirements associated with the Contra Costa Community Connections program:

TABLE 58: Schedule of Vehicle Useful Life Expiration Over Short-Range Plan Period

Vehicle #	Vehicle Type	Fiscal Year 14/15	15/16	16/17	17/18	18/19
9509	5 psgr staff car	X				
1010	3 psgr mini-van			X		
1011	3 psgr mini-van			X		
1012	3 psgr mini-van			X		
1013	3 psgr mini-van			X		
1101	3 psgr mini-van				X	
1301	5 psgr mini-van					X
1302	5 psgr mini-van					X
1303	5 psgr mini-van					X
1304	5 psgr mini-van					X
0703	26 psgr bus	X				
0704	26 psgr bus	X				
0901	26 psgr bus		X			
0902	26 psgr bus		X			
0903	26 psgr bus		X			
0904	26 psgr bus		X			
0905	26 psgr bus		X			
0906	26 psgr bus		X			
0907	26 psgr bus		X			
0908	26 psgr bus		X			
1201	26 psgr bus					X

- The recipient must be a local non-profit organization or government entity whose primary purpose is to serve the elderly and disabled.

- The organization must be able to provide at least 50 trips each month to ADA-eligible clients. During a two year provisional period, ADA passenger ridership data is recorded and reported monthly to Contra Costa Transit Authority, after which the organization is released from reporting requirements and the van is considered to be owned by the organization.

- Preference is given to organizations which have the greatest need for the vehicle, reliable funding sources, and could provide a large amount of trips to ADA-eligible clients.

- The community based organization must repaint the van so that it is no longer recognizable as a public transit vehicle.

Additionally, Contra Costa Transit Authority reimburses the van recipient for $10,000 of vehicle maintenance costs ($5,000 per year for two years) and provides free driver training.

Given the limited capacity of EDT's DAR service, donating retired EDT vans to social service agencies in the region could help to relieve demands on the system. Additionally, not all of Western El Dorado County residents and services are easy for DAR to serve. For example substance abuse programs in Georgetown are inaccessible by public transit. Donating a van to

organizations in outlying parts of the County may relieve the DAR system of longer, less cost-efficient trips.

In order to distribute a retired van equitably, EDT should implement an application and qualification process. Contra Costa Transit Authority requires that a van grant program recipient must be able to provide 50 ADA-eligible passengers trips per month. The recipient may provide trips for non ADA-eligible passengers as well. Not all organizations surveyed in Western El Dorado County solely deal with ADA-eligible persons. Some organizations are located in areas not currently served by DAR. Additionally, organizations who work with youth in the community have expressed interest in a van donation program. As EDT's DAR system is not limited to ADA-eligible individuals, it seems appropriate to broaden van donation eligibility to organizations who assist all types of transit dependent groups (disabled, elderly, youth, and low-income). A reasonable eligibility requirement for a van grant donation program in Western El Dorado County would be 50 one-way passenger-trips per month. In order to insure that the donated vans are put to good use, some sort of reporting requirements should be implemented for a period of at least one year. To minimize EDT's costs, the van recipient should be responsible for all vehicle maintenance but free driver training should be provided.

Alternative Fuels

EDT currently conforms to California Air Resources Board requirements for transit programs. Specifically, EDT has chosen to implement the "Clean Diesel path", which has included use of ultra low sulfur diesel fuel, advanced particulate traps, and other engine technologies to reduce emissions. This strategy takes advantage of the fact that modern diesel engines emit far less pollution per mile than their predecessors of previous decades, in particular with regards to particulate matter ("soot").

There is always the potential for new regulations to be implemented over the course of this planning period that would require implementation of alternative fuels at EDT. While full analysis of the advantages and disadvantages of the various options could merit a separate study, the following is a summary of the various fuel alternative options:

Compressed Natural Gas (CNG) – The most common form of alternative fuel used in the transit industry is CNG. The strength of CNG as an alternative fuel for transit buses is that it is generally less expensive per unit of energy than gasoline or diesel fuels, and it dramatically reduces the particulate emissions associated with transit operations. However, CNG vehicles have about the same greenhouse gas emissions as diesel fuel vehicles, with lower CO_2 emissions offset by higher hydrocarbon emissions. There are several disadvantages of CNG as a fuel for EDT operations:

- CNG requires substantial investment in storage tanks. CNG is stored in high pressure cylinders at pressures up to 3,000 pounds per square inch. The high weight, volume, and cost of the storage tanks for CNG have been a barrier to its commercialization as an alternative fuel. As the useful life of these tanks is shorter than the useful life of a bus, moreover, transit agencies are faced with funding expensive replacement of the tanks approximately 8 years after purchase.

- CNG vehicles have a lower power-to-weight ratio, which results in poor performance on sustained uphill grades (such as the eastbound climb from Folsom to El Dorado Hills on US 50).

- A CNG bus costs between $25,000 and $50,000 more than a comparable diesel bus. This is due to the higher cost of the engine itself and the higher cost of the fuel tanks.

- One of the major drawbacks for CNG use in Western El Dorado County is the lack of a nearby fueling station. The nearest CNG refueling stations to the EDT yard are the Placer County Public Works station in Auburn and a public fueling station in Rancho Cordova about 25 miles away. Construction of a separate fast-fill CNG station for EDT, moreover, would come with a price tag of several million dollars.

- Because of the weight of the fuel tanks and lower energy density, buses smaller than 35 feet in length are typically unable to accommodate enough fuel tanks to operate a full urban cycle service day without refueling.

Methanol -- Most of the methanol used commercially in the United States is manufactured from natural gas, making it economical to use. The energy content of the fuel is roughly half that of diesel, resulting in limited operating range. Perhaps most significantly, experimental methanol programs in Los Angeles and Seattle discovered severe engine corrosion problems at approximately 70,000 miles, which led to the termination of these programs.

Liquefied Natural Gas (LNG) – LNG has the advantage of allowing a transit vehicle to store much more energy, avoiding the refueling requirements of CNG. However, because it must be kept at cold temperatures, LNG is stored in double-wall, vacuum-insulated pressure vessels. LNG fuel systems typically are only used with heavy-duty vehicles. The potential advantages of the fuel lie in its economic considerations, where the fuel's processing costs are much less than that of the other gaseous fuels. LNG also has a greater potential to reduce NOx and HC emissions when compared to diesel and gasoline fuels. Currently, the biggest obstacles facing LNG are the lack of availability and its storage and handling facility requirements.

Liquefied Petroleum Gas (LPG) -- The advantages and disadvantages of LPG (commonly referred to as propane) are similar to those of natural gas. The advantage of LPG is that gasoline engines can be easily converted, due to its high heating and high octane characteristics. Propane vehicle power, acceleration, and cruising speed are similar to those of gasoline-powered vehicles. The range of dedicated gas-injection propane vehicles is generally less than gasoline vehicles because of the 25% lower energy content of propane and lower efficiency of gas-injection propane fuel systems. LPG is not as commonly used for transit vehicles in the United States as other alternative fuels.

Hybrid Electric -- An emerging vehicle propulsion technology that has recently gained national interest are hybrid electric systems. Operating costs for a hybrid electric system are typically lower in comparison to conventional diesel- or CNG powered arrangements due to greater fuel economy and reduced break wear. However, the average price of a 40-foot hybrid bus typically starts at $500,000, several hundred thousand dollars over the cost of a conventional diesel bus. In addition, conventional sealed-gel lead acid battery systems typically last only two to three years, and replacement units cost on the order of $25,000.

Summary

"Clean diesel" buses are generally still the most economic technology. In the short-term, continuing to follow the clean diesel path is the most appropriate for EDT, especially considering that limited funding can mean that additional operating expenses for alternative fuels reduces the ability to operate transit services. However, EDT should remain open to the ideas of alternative fuels as technology progresses, new regulations are implemented and alternative fuel infrastructure is built.

PASSENGER FACILITIES

EDT's passenger facilities consist of Park-and-Ride Lots, Transfer Centers, and individual bus stops.

Park-and-Ride Lots

Park-and-ride improvements consist of the following:

- Ray Lawyer Drive Park-and-Ride – This 150-space parking lot along Forni Road just west of Ray Lawyer Drive will be constructed as part of the interchange improvements.

- El Dorado Hills Park-and-Ride Improvements **–** There is a strong need to address the parking shortage at the current El Dorado Hills facility on the northeast corner of Latrobe Road and White Rock Road. In the short term, EDT will use a nearby parking area on Mercedes Lane. There is a need to find a long-term solution, possibly in coordination with a new County Line Multimodal Center that can also accommodate RT or Folsom Stage extension to El Dorado Hills.

- Cameron Park Drive – The existing Rodeo Road lot is not convenient to the interchange, increasing travel times. A lot with larger capacity closer to Cameron Park Drive could be developed as part of future roadway improvements.

- Cambridge Road – The existing Cambridge Road Park-and-Ride is at capacity on some days.

- Bass Lake Road – A facility in this area was identified in the Bass Lake Specific Plan. There are several site options in the northwest and southeast quadrants of the interchange. The need for this facility would be increased by development of the Marble Valley Specific Plan area.

Missouri Flat Transfer Center Improvements

The Missouri Flat Transfer Center, located along the west side of Missouri Flat Road just south of Forni Road, is the key transfer facility in the local route network. It consists of a bus pullout 100 feet in length (adequate to accommodate up to three buses at a time), with two 12-foot-long shelters. There are a number of deficiencies and limitations to this facility:

- The limited bus parking capacity – The current length of the pullout limits the number of buses that can be on-site (providing direct transfers) and also requires drivers to wait for the departure of other buses at times. Optimally, this location could accommodate buses for up to four routes at a time (Diamond Springs, Placerville, Cameron Park/Iron Point, and Pollock

Pines). In addition, space is needed for a fifth bus to allow trading out of vehicles. A total pullout length of approximately 200 feet would accommodate five buses with minimal interference between the individual bus travel paths.

- Lack of seating – The current shelters provide seating for only approximately 12 passengers, with no seating outside the shelters. Optimally, sheltered seating would be provided for at least 30 passengers, with roughly a comparable amount of seating outside the shelters for the many days when waiting in the sunshine is preferable.

- Lack of lighting – While there are individual solar powered lights within the two shelters and street lighting at the center, lighting on the pedestrian paths to nearby businesses would also be beneficial. Security cameras would also benefit public safety.

Finally, the minimal landscaping and limited attractiveness of the facility does not provide a particularly positive image of the transit system to the community. In addition, the sprinkler system needs adjusting, and additional litter removal is needed.

There are two general options for provision of an enhanced transit center. One would be the provision of a new transit center on a separate property. As shown by the existing Placerville Station, a transit center off of the public right of way provides the opportunity for expanded bus capacity and amenities, along with a more pleasant passenger experience. This would require purchase of property, construction of a building and access roadways, and possible construction of a signal to provide access. This approach would incur a development and construction cost of several million dollars, along with ongoing increased maintenance costs. The other approach would be expansion of the existing site along Missouri Flat Road. There is adequate physical space in this location to accommodate the improvements listed above (though easements may be needed from adjacent parcels). Given the overall needs at this facility and the dramatically lower costs of improvements, this approach of improvements at the existing site is preferable.

Cameron Park Transfer Center (Cameron Park Place)

The US 50 Express alternative would require improvements to the transfer point in Cameron Park Place. In the short-term, this could consist of additional paving and provision of a shelter at the existing commuter bus stop on Rodeo Road. A reasonable budget for these improvements (assuming available public right-of-way) is $30,000. In the long-term, a full transfer point should be implemented. Programming/siting considerations for this transfer point are as follows:

- A location within a convenient walk distance to shopping destinations (particularly grocery shopping), and to a restroom available to transit drivers.

- A location that allows safe movement of transit buses, with minimal delays.

- Adequate capacity to accommodate a minimum of 3 buses, outside of travel lanes.

- Expanded shelters and landscaping/seating areas.

- Lighting

- Full compliance with Americans with Disabilities Act and Public Right-of-Way Accessibility Guidelines design requirements.

One potential location that accommodates these considerations is the east side of Strolling Hills Road, to the north of the shopping center access drive between Rodeo Road and Coach Lane. This would require working with the shopping center owner. While total costs would depend on any acquisition or lease costs for private land, construction costs would be on the order of $250,000.

Bus Stop Improvements

The "street furniture" provided by the transit system is a key determinant of the system's attractiveness to both passengers and community residents. In addition, they increase the physical presence of the transit system in the community. Bus benches and shelters can play a large role in improving the overall image of a transit system and in improving the convenience of transit as a travel mode. More importantly, shelter is vital to those waiting for buses in harsh weather conditions. In addition, passengers could benefit by installing passenger amenities at major bus stops, particularly adjacent to regional shopping centers, medical facilities, and social service agency facilities.

Adequate shelters and benches are particularly important in attracting ridership among the non-transit-dependent population – those that have a car available as an alternative to the bus for their trip. Preference should be given to locations with a high proportion of elderly or disabled passengers and areas with a high number of daily boardings. Lighting and safety issues are equally important along major highways. Consideration of evening service should include an analysis of lighting needs at designated bus stops. This could range from overhead street lighting to a low power light to illuminate the passenger waiting area.

The following are key locations on the local route system that warrant provision of a shelter, based upon current passenger boarding activity:

- Old Placerville City Hall
- Child Development Center
- Raley's (Placerville Dr.)
- Folsom Lake College
- Safeway (Cameron Park)
- Pearl Place & Courtside Dr.
- Human Services
- Placerville Post Office
- Upper Room

All new passenger amenities should comply with the design standards referenced in the *El Dorado Transit Authority Transit Design Manual* (LSC Transportation Consultants, Inc., 2007).

Bicycle/Pedestrian Facilities

At one end of their trip or the other, virtually all transit passengers also travel on foot or on bicycle as part of their trip. A key element of a successful transit system, therefore, is a convenient system of sidewalks and bikeways serving the transit stops. Additionally, by promoting non-motorized forms of transportation, EDT can help to reduce greenhouse gas emissions and other air pollutants. EDT should continue to work with the planning and public works departments of El Dorado County and the other jurisdictions in the region to review construction plans and schedule priorities for pedestrian and bicycle improvements to best coordinate with transit passenger needs. All existing EDT local route and commuter buses currently have bike racks.

passenger to avoid purchase of additional fares at transfer points while also allowing tracking of passengers as the basis for an equitable distribution of fare revenues. While the system will initially be implemented in the Sacramento RT system, EDT will be added in a later phase. In order to issue the smart cards and process transactions, EDT will need to be equipped with a smart card printer/encoder, digital camera (for ID photos), and a credit/debit card processor. The primary benefit to the El Dorado County passenger is that a "seamless" transit trip could be provided throughout the region, such as a trip from Placerville to the Sacramento International Airport. In addition, employers or social service agencies that currently purchase transit passes would be able to purchase a block of limited use pre-encoded smart cards and be billed electronically for actual trips periodically.

With these improvements, EDT's transit technologies will be consistent with the "state of the practice" of the transit industry.

Wi-Fi on Commuter Buses

The provision of internet Wi-Fi connectivity to transit passengers is becoming increasingly common, as a means of attracting additional riders and better serving existing riders. In particular, providing connectivity on long commute trips helps to make transit service more competitive with driving. While no detailed studies have been conducted, anecdotal information indicates that a ridership increase of several percentage points can be attributed to provision of Wi-Fi service. Examples of existing transit systems providing Wi-Fi service are the Regional Transportation Commission in Reno, Nevada, as well as the Utah Transit Authority in Salt Lake City. Ongoing internet service costs can vary widely, though some services find that these costs can be offset through user fees. The capital cost of providing Wi-Fi service averages approximately $1,500 per vehicle. This would indicate a total cost on the order of $30,000 to outfit the current EDT commuter bus fleet.

POTENTIAL EL DORADO HILLS OPERATIONS BASE

At present, EDT services require "deadheading" a vehicle from the single operating base in Diamond Springs. If services operated in the westernmost portion of the county were to increase, the costs of deadheading could increase, making establishment of a second operating base potentially financially beneficial. A second operations base would reduce deadhead operating costs, and could potentially improve responsiveness to service interruptions and ridership requests. At a minimum, a facility would provide the following:

- Secure office space for driver lockers and operational office space
- Storage space for operating supplies
- Staff restrooms
- Secure parking for a minimum of three transit vehicles

There are several ways in which a facility could be provided:

1. Use of existing office space and parking lot. Availability and costs are currently unknown. This is probably not a viable long term solution.

2. Leasing a facility. Given the relatively modest program, A review of commercial lease rates in El Dorado Hills indicates that a reasonable annual lease cost would be on the order of $20,000 annually.

3. Construction of a new facility on an existing parking area (such as an unused parking lot). This would require fencing and construction of a small office building. As shown in This is estimated to equal $300,000 (including design, furnishings, and contingency), but excluding land costs.

Beyond the cost considerations, establishing a second operating facility would be a substantial change in current El Dorado Transit operations and management. To establish a base of operations in El Dorado Hills, the following issues would need to be addressed:

1. **Driver Check-In**: El Dorado Transit currently observes 100 percent of driver check-ins and believes this policy has ensured drivers are fit for duty every time they are on the clock.

2. **Fueling**: While El Dorado Transit uses a card lock for fueling vehicles in Diamond Springs, vehicles stationed in El Dorado Hills would need to fuel at commercial stations, which makes price slightly less predictable.

3. **Vehicle Maintenance**: Major maintenance would continue to be conducted at the El Dorado Transit facility in Diamond Springs, but minor maintenance such as jumping a battery, adding oil, etcetera, would need to be available locally. There are no County corporation yards for such services. Adequate containment and handling procedures for fluids would need to be provided.

4. **Vehicle Cleaning**: While the frequency of cleaning of El Dorado Transit vehicles varies with conditions, vehicles in service are at a minimum cleaned internally daily and externally weekly. Either additional cleaning staff would be needed in El Dorado Hills, or additional driver time would be needed.

5. **Security**: Parking would need to be secure (locked, fenced area) and office space would be needed for securing the fareboxes.

6. **Mobile Data Terminals**: All El Dorado Transit vehicles have MDTs which are exchanged every day. At a minimum, additional hardware and communications equipment would be needed at a new facility to allow information to be exchanged.

7. **ZONAR**: El Dorado Transit also uses the ZONAR system, which generates geoposition information of vehicles and drivers. A detector currently serves as a “geofence” at the existing facility; a similar detector would be needed at the new facility.

8. **Driver Timesheets**: All drivers currently turn in and pick up timesheets on at least a weekly basis. At a minimum, procedures would need to be established for these sheets to

be transmitted (such as by fax or scan) between Diamond Springs and El Dorado Hills, and the necessary equipment provided.

9. **Fareboxes**: All fareboxes are counted on a daily basis. This requires "two deep" staffing for security purposes. Unless additional staff and/or driver time is provided at an El Dorado Hills facility, extra fareboxes would need to be provided, and fareboxes moved between the two facilities on a daily basis. This could potentially be accomplished using the off-direction Commuter Service buses. In any case, specific protocols would need to be established to ensure adequate security regarding storage, transfer, counting and deposits of fares generated in El Dorado Hills.

In considering the capital costs, ongoing operational costs, and operational issues associated with a second operating base, and in light of the limited potential growth in new local EDT services in the El Dorado Hills area, this alternative would not be an overall benefit.

USE OF EDT CAPITAL ASSETS TO SUPPORT WINTER OLYMPICS OR OTHER SPECIAL EVENTS IN TAHOE

Efforts are ongoing to host a future Winter Olympics in the Tahoe Region. This would include events in the South Shore area, which would result in the need to transport large numbers of spectators, sponsors, athletes and media personnel along the US 50 corridor through Western El Dorado County. As limited mountain roadway systems cannot accommodate the surge in resulting auto traffic, a crucial element of hosting a successful modern Winter Olympics is a strong program of bus transportation. EDT park-and-ride facilities and/or buses could be used as part of a regional shuttle program to support the Winter Games, or for other major events in the Sierra, such as marathons.

Chapter 8
Institutional and Management Alternatives

PERFORMANCE MONITORING

An important element in the success of any organization is a clear and concise set of goals and the performance measures and standards needed to attain them. This can be particularly important for a public transit agency, for several reasons:

- Transit goals can be inherently contradictory. For instance, the goal of maximizing cost effectiveness can tend to focus services on the largest population centers, while the goal of maximizing the availability of public transit services can tend to disperse services to outlying areas. To best meet its overall mission, a public transit agency must therefore be continually balancing the trade-offs between goals. Adopting policy statements also allows a discussion of community values regarding transit issues that is at a higher level of discussion than is possible when considering case-by-case individual issues.

- As a public entity, a public transit organization is expending public funds, and therefore has a responsibility to provide the public with transparent information on how funds are being spent and how well it is doing in meeting its goals. Funding partners also have a responsibility to ensure that funds provided to the transit program are being used appropriately. The transit organization therefore has a responsibility to provide information regarding the effectiveness and efficiency by which public funds are being spent.

- An adopted set of goals and performance standards helps to communicate the values of the transit program to other organizations, to the public, and to the organization staff.

A series of recommended goals, objectives, and standards, specific to the EDT were developed as part of the *Western El Dorado County 2008 Short Range Transit Plan*. As part of the current study, these policy statements were reviewed and updated, based on recent performance values and studies.

The following goals, performance measures, and standards are designed to reflect the adopted policy statements of the region. Goals establish general direction for policies and operation and are value-driven providing long-range perspective. Standards are quantifiable observable measures that reflect achievement of the goals. The performance measures provide the mechanism for judging whether or not the standards have been met.

Five major goals are identified: a service efficiency goal (reflecting efficient use of financial resources), a service effectiveness goal (reflecting effectiveness in serving passengers), a service quality goal, an accessibility goal, and a planning and management goal. Reflecting the very different service environment and expectations, these policy statements are developed independently for the following EDT services:

- Commuter services
- Local route services (local fixed-route and route-deviation services in the US 50 Corridor)

- DAR services
- Rural services

Contract services (such as the M.O.R.E. service) are not covered by this discussion, as the service standards are addressed in the individual contract agreements. In addition, the Sac-Med service is not considered, as it is a specialized service providing for specific medical needs.

Standards are provided as appropriate, based upon observed performance of similar transit systems in California, as well as the existing performance of EDT transit services. Goals, performance measures and standards specific to each type of service are presented in Table 59 along with EDT quantitative results for FY 2012/13 where applicable. Areas where EDT did not meet the standard in FY 2012/13 are shaded in blue. Data was not available for all performance measures.

Service Efficiency Goal

To maximize the level of services that can be provided within the financial resources associated with the provision of transit services. The standards should not be strictly applied to new routes for the first two years of service, so long as 60 percent of standard is achieved after one full year of service and a favorable trend is maintained.)

Commuter Services

These standards apply to the Sacramento Commuter/Reverse Commuter service (considered as a whole), and would be applied to any future new service west of Folsom.

Farebox Recovery Ratio Standard – The ratio of farebox income to operating costs should meet or exceed 50 percent.

Subsidy Standard – The public operation/administrative subsidy per passenger-trip for service should not exceed $5.00 (in FY 2013/14), based on both industry standards and existing transit system goals. This standard should be adjusted annually to account for inflation.

In 2012/13, the commuter service attained these standards.

Local Route Services

These standards apply to the local routes (both deviated and fixed) that serve the US 50 Corridor, including the IPC.

Farebox Recovery Ratio Standard – The ratio of farebox income to operating costs should meet or exceed 10 percent.

Subsidy Standard – The public operation/administrative subsidy per passenger-trip for service should not exceed $15 in FY 2013/14, based on industry standards and recent experience. This standard should be adjusted annually to account for inflation.

TABLE 59: Western El Dorado County Goals and Standards for Transit Service

Fiscal Year 2012-13 Results

Shadind Indicates Does Not Meet Standard

Performance Measure / Service	*Service Efficiency Goal*		*Service Effectiveness Goal*	*Service Quality Goal*						
	Operating Farebox Return Ratio Standard (Minimum)[1]	Operating Subsidy Per Passenger-Trip Standard (Maximum)[1]	Passenger-Trips per Vehicle Service Hour (Minimum)	Passenger Amenity Standard (Shelters & Seating)		Service Availability Standard	On-Time Performance Standard (Minimum % of Trips On-Time	Missed Trips (Maximum)	In-Vehicle Travel Time (Maximum)	Service Headway Standard (Minimum)	Trip Denial Standard
Commuter Services											
Standard	**50.0%**	**$5.00**	**10.0**	**Seating >= 5 psgrs/day**	**Shelter >= 10 psgrs/day**	**Serve Employment Centers That Can Meet Other Goals?**	**90%**	**1%**	**Less Than 3 Times Auto Travel Time**	**N/A**	**N/A**
Sacramento Commuter/Reverse Commute	77.9%	$1.60	14.7	No	No	Yes	98%	N/A	Yes	N/A	N/A
Local Route Services											
Standard	**10.0%**	**$15.00**	**5.0**	**Seating >= 5 psgrs/day**	**Shelter >= 10 psgrs/day**	**Service To Activity Centers That Can Support Fixed Route?**	**90% for Fixed-Routes, 80% for Deviated Fixed-Routes**	**1%**	**Less Than 3 Times Auto Travel Time**	**60 Minutes**	**N/A**
Cameron Park	13.2%	$8.09	10.1	--	--	--	N/A	N/A	Yes	No	N/A
Diamond Springs	12.4%	$6.32	11.5	--	--	--	N/A	N/A	Yes	Yes	N/A
Placerville East/ West	13.8%	$6.48	10.5	--	--	--	N/A	N/A	No (1)	Yes	N/A
Pollock Pines	16.3%	$6.43	11.7	--	--	--	N/A	N/A	Yes	Yes	N/A
Saturday Express	12.6%	$8.35	9.4						Yes	Yes	N/A
Iron Point Connector	10.7%	$18.04	5.0	--	--	--	N/A	N/A	Yes	No	N/A
Total Local Routes	*13.8%*	*$7.32*	*10.3*	*No*	*No*	Yes	88%	N/A			
Rural Services											
Standard	**5.0%**	**$35.00**	**2.5**	**N/A**	**N/A**	**N/A**	**90%**	**1%**		**N/A**	**N/A**
Grizzly Flat	14.7%	$28.66	3.0	N/A	N/A	N/A	N/A	N/A	Yes	N/A	N/A
Demand Response Services											
Standard	**N/A**	**N/A**	**2.0**	**N/A**	**N/A**	**Service Within 3/4 Mile of Fixed-Routes?**	**95%**	**1%**	**100% Within 2 Hrs**	**N/A**	**No Pattern of ADA Denials**
Dial-A-Ride	6.6%	N/A	2.2	N/A	N/A	Yes	95%	N/A	Yes	N/A	Yes

Note 1: While the Placerville Express route does not attain this standard for service across Placerville, in combination with the Placerville East /West routes this standard is attained for the Placerville local route system as a whole.

In FY 2012/13, all services attained the farebox standard, and all but the Iron Point Connector attained the subsidy standard.

Rural Services

These standards apply to the existing Grizzly Flat services, as well as any future services outside of the US 50 Corridor in El Dorado County. It is recognized that rural services are inherently less effective than services in more populated areas.

Farebox Recovery Ratio Standard – The ratio of farebox income to operating costs should meet or exceed 5 percent.

Subsidy Standard – The public operation/administrative subsidy per passenger-trip for shuttle service should not exceed $35 in FY 2007/08. This is a realistic standard, based on the inherent financial challenges of providing rural service. This standard should be adjusted annually to account for inflation.

Both of these standards were attained in FY 2012/13.

Service Effectiveness Goal

To maximize the ridership potential of EDT service. The standards should not be strictly applied to new routes for the first two years of service so long as 60 percent of standard is achieved after one year and a favorable trend is maintained.

Commuter Services

Service Effectiveness Standard – Serve a minimum of 10 passenger-trips per vehicle service hour. This standard is met.

Local Route Services

Service Effectiveness Standard – Serve a minimum of 5 passenger-trips per vehicle service hour. This standard is met.

Rural Services

Service Effectiveness Standard – Serve a minimum of 2.5 passenger-trips per vehicle service hour. The Grizzly Flat Route meets this standard.

Demand Response Services

Service Effectiveness Standard – Serve a minimum of 2 passenger-trips per vehicle service hour. This standard is met.

Service Quality Goal

To provide safe, reliable, and convenient transit services.

All Services

- Passenger Load Standard – For passenger safety and comfort, vehicles should be sized and the transit service operated to limit typical peak loads to the seating capacity. Standing loads shall be limited to a maximum of 20 percent of daily runs.

- Regional Connectivity Standard – Local service should be provided within one block of all regional transit transfer locations and intercity bus/rail stops. EDT marketing materials shall provide information sources regarding connecting services. Passenger facilities should be improved to enhance regional public transportation connections. EDT services meet this standard.

- Accident Standard – Maintain a minimum of 50,000 miles between preventable collision accidents and 25,000 miles between all types of accidents. EDT does not record the mileage between accidents but a review of accident summaries over the last three years indicated that EDT generally meets this standard. A review of the last three years of accident records indicates that EDT far exceeds this standard, averaging 119,000 miles between preventable accidents and 78,000 miles between all types of accidents.

- Maintenance Standard – Maintain a minimum of 10,000 miles between roadcalls. At a current value of 26,200 between roadcalls, EDT far exceeds this standard.

- Preventive Maintenance Standard – 100 percent of preventative maintenance actions should be completed within 500 miles of schedule. EDT meets this standard, based on weekly tracking of mileage.

- Vehicle Standard – Vehicles should be replaced at the end of their useful lives and according to FTA guidelines. The average fleet age should be no more than six years. EDT has several vehicles which are due for replacement. The average age of the fleet (excluding backup vehicles) is 5.6 years.

- Vehicle Cleanliness Standard – The outside of all vehicles in regular use shall be washed at least weekly, except when water use restrictions are in effect. Inside, spot cleaning and trash removal shall be conducted at least daily.

- Passenger Complaint Standard – Passenger complaints shall be less than 1 per 5,000 passenger-trips (fixed-route) and less than 1 per 3,000 passenger-trips (demand-response). In FY 12/13, these standards were easily met, with only 0.21 complaints per 5,000 fixed route trips and 0.15 complaints per 3,000 demand-response trips. Management response should be provided to all complaints within one working day. EDT typically responds to complaints within one business day.

- Training Standard – All services shall be provided by trained, courteous, respectful employees, who are sensitive to the needs of passengers. Passenger survey results show high marks for driver courtesy.

Commuter Services

These standards can be applied specifically to the Sacramento and Reverse Commuter routes as shown in Table 59.

- Passenger Amenity Standard – Shelter should be provided at all transit stops serving 10 or more passengers per day within Western El Dorado County. Seating should be provided at all transit stops serving 5 or more passengers per day within Western El Dorado County. Under this standard, the Ponderosa, Rodeo, and El Dorado County Fairgrounds Park-and-Rides should have shelters.

- Service Availability Standard – Provide transit service to employment centers that can support commuter service consistent with the service efficiency and effectiveness goals.

- On-Time Performance Standard – 90 percent of all trips should be operated "on-time," defined as not early, and no more than 5 minutes late.

- Missed Trips Standard – The proportion of runs not operated or more than 15 minutes late should be no more than 1 percent. EDT does not track this on a formal basis.

- Travel Time Standard – Transit travel should take no longer than 3 times the equivalent automobile trip during peak commute times.

Local Route Services

- Passenger Amenity Standard – Shelter should be provided at all transit stops serving 10 or more passengers per day within Western El Dorado County. Seating should be provided at all transit stops serving 5 or more passengers per day within Western El Dorado County. Additional shelters and benches are required to attain this standard.

- Service Availability Standard – Provide transit service to residential areas, major medical, shopping, government, employment centers, and activity centers that can support route service.

- On-Time Performance Standard – 90 percent of all fixed-route trips and 80 percent of all deviated fixed-route trips should be operated "on-time," defined as not early, and no more than five minutes late. Performance shall be measured at the route terminus, though evaluation of on-time performance at intermediate time points is encouraged if an on-time issue is identified.

- Missed Trips Standard – The proportion of runs not operated or more than 15 minutes late should be no more than 1 percent. EDT does not track this on a formal basis.

- Travel Time Standard – Transit travel should take no longer than 3 times the equivalent automobile trip during peak commute times. This is generally attained. While the Placerville Route does not attain this standard for trips across Placerville, the availability of faster service on the Pollock Pines Route does attain the standard.

- Service Frequency Standard – Provide scheduled service with a maximum headway of 60 minutes in both directions along each route; strive to provide 30-minute headways where cost-effective in order to improve service quality. The current schedule of the Cameron Park and Iron Point Connector does not attain this standard.

- Bus Stop Spacing Standard – Buses should serve approximately 4 to 6 bus stops per mile in developed areas.

Rural Services

- On-Time Performance Standard – 90 percent of all trips should be operated "on-time," defined as not early, and no more than 10 minutes late.

- Missed Trips Standard – The proportion of runs not operated or more than 15 minutes late should be no more than 1 percent. EDT does not track this on a formal basis.

Demand Response Services

- Service Availability Standard – Provide demand response service to all areas within three-fourth's mile of fixed-route service, per the requirements of the ADA.

- On-Time Performance Standard – 95 percent of all scheduled pick-ups should be provided "on-time," defined as no more than 10 minutes late.

- Missed Trips Standard – The proportion of runs not operated or more than 30 minutes late should be no more than 1 percent. EDT does not track this on a formal basis.

- In-Vehicle Travel Time Standard – 100 percent of passengers should reach their destinations within 2 hours.

- Trip Denial Standard – No pattern of trip denials to ADA eligible passengers shall exist due to vehicle unavailability. Reschedule denied trips where possible.

Accessibility Goal

To provide a transit system that is accessible to the greatest number of persons while maintaining the productivity of the system.

- Service Area Standard – Maximize the area provided with transit service while maintaining minimum farebox return standards.

- Vehicle Accessibility Standard – Maintain a fully wheelchair-accessible transit fleet.

- ADA Goal – Fully meet the requirements of the ADA.

Planning and Management Goal

To evaluate strategies which help management maximize productivity while meeting the transit needs of the community and develop a transit program that supports comprehensive planning goals.

- Planning Standard – Short Range Transit Plans shall be updated at a minimum of every four years.

- Service Monitoring Standard – Monitoring reports on the effectiveness and efficiency of transit service will be collected and reviewed monthly.

- Transportation Development Act Standard – The requirements of the Transportation Development Act shall be fully met, particularly with regard to addressing those unmet transit needs of the community that are "reasonable to meet."

- Land Use Planning Standard – Development proposals shall be reviewed with the El Dorado County Development Services Department and City of Placerville Community Development Department to assess the effects of development on transit service, and to encourage land development that is compatible with transit service. In addition, roadway modification plans along existing or planned transit service routes shall be reviewed by transit staff.

- Coordination Standard – On at least a quarterly basis, potential coordination opportunities with all other public transportation providers in the service area shall be reviewed to ensure convenient connections between services and to avoid unnecessary duplication of service.

- Marketing Standard – Marketing efforts shall be conducted to ensure that all service area residents are aware of EDT services. Targeted marketing efforts shall be conducted for high-potential groups, including elderly, disabled, and low-income residents. A minimum of 2 percent (and preferably 3 percent) of total annual operating/administrative budget should be expended on marketing efforts. Up-to-date schedules and route maps should be conveniently available to the public at all times.

- Administrative Cost Standard – Administrative costs should be 15 percent or less of total operating costs.

MARKETING

Marketing in its broadest context should be viewed as a management philosophy focusing on identifying and satisfying customers' wants and needs. The basic premises of successful marketing are providing the right product or service, offering it at the right price, and adequately promoting or communicating the existence and appropriateness of the product or service to potential customers. Unfortunately, the word "marketing" is associated only with the advertising and promotional efforts that accompany "selling" the product or service to a customer. Instead, such promotional efforts are only a part of an overall marketing process. Without a properly designed and developed product or service offered at the right price, the expenditure of promotional monies is often ill-advised.

Obviously, the marketing program must fit within budgetary limitations of any organization. According to the American Public Transit Association, transit providers typically budget between 0.75 and 3.0 percent of their gross budget on marketing promotions (excluding salaries), with the majority around 2 percent. Although this is slightly less than most private sector businesses, public sector organizations can rely more heavily on media support for their public relations programs. Currently, the resources allocated to marketing by EDT are limited. There are two positions that is partially allocated to marketing efforts (the Planning and Marketing Manager, and an Office Assistant), along with a budget of $35,000 per year.

Fortunately, EDT is undertaking a market assessment study that will develop detailed marketing strategies. This will include marketing surveys and preparation of new marketing materials. The following elements should come out of this study:

- Review of bus stop signage and information throughout the system
- Improvements to EDT's online presence and social media strategies
- Marketing for new services identified in this plan
- Expanded marketing of the transit connections between El Dorado County and Sacramento County

Improvements to Website

The EDT website at www.eldoradotransit.com provides an extensive and comprehensive amount of information regarding the transit organization. It provides a link to information in Spanish (though the full site is not available in Spanish), as well as opportunities to provide input or request information. However, it has a basic functional look that is not particularly attractive. It lacks a systemwide map for the local routes, which would make this system more understandable to the first time visitor. It also has an error that doubles the quick link menu, making it difficult to use. Overall, it would benefit from a renovation, using up-to-date web development software.

Expanded Use Of Social Media For Marketing / Passenger Information

EDT has taken good advantage of the capabilities of social media to connect with its passengers. The organization maintains a presence on both Facebook and Twitter, and actively uses them to provide real-time information on service interruptions and changes. This places EDT in with the majority of transit programs. Surveys presented in the Transit Cooperative Research Program's *Synthesis 99: Uses of Social Media in Public Transportation* provides indicates that the most prevalent platform for social media use is Twitter, which is used by 86 percent of respondents for distributing agency news, and 77 percent for real-time service alerts. This compares with 80 percent using Facebook for agency news and 49 percent for service alerts. Facebook is used more prevalently for feature stories and contests/promotions. In comparison, other platforms (YouTube, LinkedIn, individual blogs) had substantially lower use levels.

Traveler Information Systems

With the widespread use of texting cell phones and smartphones, transit systems are increasingly investing in transit planning tools to provide information to passengers (and potential passengers) that can make transit use more convenient. There are two elements that merit consideration: advance trip planning, and real-time transit information.

Advance trip planning consists of websites that can allow a passenger to input their desired trip origin/destination and departure time and be provided with detailed options on how to complete their trip on transit. The most prevalent site is Google Transit. To participate, EDT would need to provide detailed information on stop location (including deviation stops) and schedules. Transit systems in the region that already provide this service include Tahoe Area Regional Transit, Amador Transit, and Yolobus.

Real-time travel information systems allow a passenger to receive information regarding when the next bus will serve their stop (including the impacts of traffic delays), as well as to watch a real-time map of the buses in operation. This is particularly useful in improving the overall convenience of transit, in that a rider can time their departure for their trip to the bus stop to minimize wait time. A commonly used vendor of this type of service is Nextbus. Transit systems in the region already using this service include Amador Transit, Unitrans, and Eastern Sierra Transit.

VANPOOL PROGRAM

A potential institutional option to expand overall mobility for Western El Dorado County residents would be for EDT to establish a vanpool program. An example of this type of program is the vanpool program operated by Placer County through the Placer County Transit program. This program consists of 8 to 10 vanpools connecting Placer County residents with employment sites in Sacramento and Davis. A sobering fact of this program is that it incurs an ongoing annual operating subsidy of approximately $130,000.
The Sacramento TMA currently organizes vanpools throughout the Sacramento Region (including Western El Dorado County). Extensive information can be found at sacregion511.org. Rather than duplicating this service, transit organizations in Western El Dorado County should refer local residents and employees that are interested in vanpooling to the Sacramento TMA.

IMPACT OF EXPANSION IN SACRAMENTO URBANIZED AREA

Based on the results of each decennial US Census, the Census Bureau modifies the boundaries of the Sacramento Urbanized Area. Most recently, based upon the 2010 census this boundary was extended westward to include the Cameron Park and Shingle Springs areas. As development continues, it can be expected that a higher proportion of Western El Dorado County will be encompassed in the urbanized area in 2020 and 2030[7]. These changes will reduce EDT's ability to compete for FTA Section 5311 and Nonurbanized Area Formula Program grants, but will increase the potential to generate FTA Section 5307 and other urban area funding. These funds can be used for capital purposes only, though major bus maintenance functions (such as rebuilding and overhaul) can be considered to be capital programs. The net effect of this shift is to reduce federal funding available for EDT operating purposes.

[7] As this designation is based upon a complicated formula that reflects residential density and the specific distance between residential areas (which varies based upon the geography traversed), it is not possible to quantitatively forecast future changes.

Chapter 9
Financial Alternatives

A wide number of potential transit funding sources are available, particularly within California. This chapter first presents a discussion of fare alternatives. This is followed by an overview of Federal and state funding programs, as well as options for local funding.

FARE ALTERNATIVES

Offer a Day Pass within Western El Dorado County and Establish a Higher Fare for Service to Folsom on US 50 Express and a Lower Fare for Travel within Western El Dorado County

At present, the El Dorado Transit local routes (Placerville, Cameron Park, Diamond Springs and Pollock Pines) require a $1.50 one-way fare for the general public, and $0.75 for seniors, persons with disabilities, Medicare cardholders, and K-12 students. A $60/$30 monthly pass is available for general public/reduced fare passengers respectively. The Iron Point Connector requires a $2.50 one-way fare for the general public, and $1.25 for seniors, persons with disabilities, and Medical cardholders. A $90 monthly pass is available for all. No transfers are issued. As a result, passengers traveling on two or more routes must either present a pass, or pay a second fare.

The US 50 Express alternative would increase the need for passengers to transfer between buses. To avoid an excessive increase in costs to existing passengers (particularly those currently riding the Cameron Park Route between Cameron Park and the Missouri Flat area for a single fare), the following changes in fares are recommended:

- Provide an "El Dorado Zone" fare on the 50 Express equal to the local fare. Only charge the higher $2.50/$1.25 fare for travel to/from Folsom.

- Provide the discounted fare on the 50 Express for K-12 students traveling within Western El Dorado County

- Provide a day pass, available from the driver (or other fare outlets) for $3 general public and $1.50 for elderly, persons with disabilities, Medicare cardholders, and K-12 students. Riders making a round-trip on two routes (such as Cameron Park and 50 Express) would use these day passes to minimize overall fare, resulting in no change in total fare for those making a one-way trip with a transfer, and a fare reduction for those making a daily round-trip including a transfer.

The overall impact of providing a daypass on passenger fare revenue can be estimated based on passenger survey data collected in the onboard surveys conducted in 2011. The survey of 217 local route passengers indicated that 16 percent transferred as part of their trip, and that 46 percent paid a cash fare. Of those paying a cash fare, 49 percent made a round-trip without a transfer, 6 percent made a round-trip with a transfer, 39 percent made a one-way trip without a transfer, and 6 percent made a one-way trip with a transfer. Using this information, it is estimated that offering a daypass at twice the base fare would result in a modest reduction in overall fare revenue, of approximately $10,000 per year.

INCREASED PASSENGER REVENUES

One option to increase funding would be to increase the passenger fares. This option is perceived as being equitable, in that the direct beneficiaries of transit service are required to pay. The major disadvantage associated with a fare increase is reduction of the attractiveness and convenience of transit service. If fares were raised, it is likely ridership would drop, possibly increasing the overall subsidy required to run the system. This, moreover, would affect those most in need of transit service – the low-income population who cannot afford a car. In addition, by reducing the attractiveness of transit service, a fare policy works at cross purposes to many of the stated goals for transit with regard to increase in mobility and reduction of traffic and parking demand.

Table 60 presents an analysis of the ridership and revenue impacts of potential fare increases for the various EDT services. These examples are just a few of many that could be considered. As shown, they would result in a 6 to 10 percent reduction in ridership on the various services. Given that all EDT services are currently attaining farebox return ratio standards, and that the overall budget does not include immediate budget deficits, the loss of ridership that would accompany any fare increase indicates that this need not be considered in the immediate future.

Long Range Fare Changes to Address Inflation

Over the long term, even the current relatively low rate of inflation can erode the value of a set transit fare. As an example, a 2 percent inflation rate would reduce the value of the current $1.50 base fare on the local routes to only $0.99 by 2035. In addition to generating needed revenue, maintaining fare revenues as a proportion to total costs is important to transit systems in California, due to the minimum farebox return ratio requirements of the Transportation Development Act. It is assumed for purposes of the long-range plan that fare increases occur as necessary to maintain farebox revenues.

Participation in Regional Transit Pass Program

As discussed in the previous chapter, EDT is part of a regional coalition working to implement a region-wide “Connect Card” program that will avoid the need for multiple fare purchases or passes for passengers making transfers between transit services. While this effort can provide an overall benefit, there is the potential that pass prices and fare revenue sharing arrangements result in a net reduction in fare revenue to EDT. It is assumed that these arrangements are ultimately designed to be revenue neutral.

FEDERAL TRANSIT FUNDING SOURCES

The Federal Transit Administration (FTA) administers a variety of public transit grant programs across the nation. The latest legislation for funding transportation programs is MAP-21, the *Moving Ahead for Progress in the 21st Century* Act (P.L. 112-141), signed into law on July 6, 2012. Funding surface transportation programs at over $105 billion for FY 2013 and 2014, MAP-21 is the first long-term highway authorization enacted since 2005 (which was extended ten times). MAP-21 is intended to create a streamlined and performance-based surface

TABLE 60: Analysis of Fare Increase Alternatives

Note: All assume proportionate increases in applicable pass costs

	Base Fare			Annual Ridership				Annual Fare Revenues			
Fare Option	Existing	With Fare Increase	Elasticity Factor	Existing	With Fare Increase	Change	% Change	Existing	With Fare Increase	Change	% Change
Increase Local Route Fares from $1.50/$0.75 to $2.00/$1.00	$1.50	$2.00	-0.35	171,600	155,200	-16,400	-9.6%	$190,400	$229,600	$39,200	20.6%
Increase Iron Point Connector Fare from $2.50/$1.25 to $3.00/$1.50	$2.50	$3.00	-0.35	9,800	9,200	-600	-6.1%	$21,200	$23,900	$2,700	12.7%
Increase Commuter Fare from $5 to $6	$5.00	$6.00	-0.40	134,100	124,700	-9,400	-7.0%	$758,200	$846,100	$87,900	11.6%
Increase DAR Fare From $4.00/$2.00 to $5.00/$2.50	$5.00	$6.00	-0.42	26,500	24,500	-2,000	-7.5%	$70,800	$78,500	$7,700	10.9%

Source 1: *TCRP Report 95: Transit Pricing and Fares,* and *USDOT Estimating Patronage for Community Transit Services*

transportation program building on many of the highway, transit, bike, and pedestrian programs and policies established in 1991. Below is a description of the various grant programs, some of which are new, and some of which have been consolidated or changed from previous programs.

NEW PROGRAMS UNDER MAP-21

FTA Section 5339 Bus and Bus Facilities Program

A new formula grant program is established under Section 5339, replacing the previous Section 5309 discretionary Bus and Bus Facilities program (which El Dorado Transit was a recipient of in the past). This capital program provides funding to replace, rehabilitate, and purchase buses and related equipment, and to construct bus-related facilities. Authorized funding is $422 million in FY 2013 and $428 million in FY 2014. Each year, $65.5 million is allocated with each State receiving $1.25 million and each territory (including DC and Puerto Rico) receiving $500,000. The remaining funding is distributed by formula based on population, vehicle revenue miles and passenger miles. This program requires a 20 percent local match.

FTA Section 5337 State of Good Repair Program

MAP-21 established a new grant program to maintain public transportation systems in a state of good repair. This program replaced the fixed guideway modernization program (Section 5309). Funding is limited to fixed guideway systems (including rail, bus rapid transit, and passenger ferries) and high intensity bus (high intensity bus refers to buses operating in High Occupancy Vehicle (HOV) lanes.) Projects are limited to replacement and rehabilitation, or capital projects required to maintain public transportation systems in a state of good repair. Projects must be included in a transit asset management plan to receive funding. The new formula is comprised of: (1) the former fixed guideway modernization formula; (2) a new service-based formula; and (3) a new formula for buses on HOV lanes. Authorized funding for this program is $2.1 billion in FY 2013 and $2.2 billion in FY 2014.

FTA Section 5326 Asset Management Provisions

MAP-21 requires FTA to define the term “state of good repair” and create objective standards for measuring the condition of capital assets, including equipment, rolling stock, infrastructure, and facilities. Based on that definition, FTA must then develop performance measures under which all FTA grantees will be required to set targets. All FTA grantees and their sub-recipients are required to develop transit asset management plans. These plans must include, at a minimum, capital asset inventories, condition assessments, and investment prioritization. Each designated recipient of FTA formula funding will be required to report on the condition of its system, any change in condition since the last report, targets set under the above performance measures, and progress towards meeting those targets. These measures and targets must be incorporated into metropolitan and statewide transportation plans and transportation improvement programs (TIPs). FTA supports this effort through technical assistance, including the development of an analytical process or decision support tool that allows recipients to estimate their capital investment needs over time and assists with asset investment prioritization.

CONSOLIDATED PROGRAMS UNDER MAP-21

FTA Section 5307 Urbanized Area Formula Grants

The largest of FTA's grant programs, this program provides grants to urbanized areas (50,000 population or more per the US Census) to support public transportation. Funding is distributed by formula based on the level of transit service provision, population, and other factors. The program remains largely unchanged with a few exceptions:

- *Job access and reverse commute activities now eligible*: Activities eligible under the former Job Access and Reverse Commute (JARC) program, which focused on providing services to low-income individuals to access jobs, are now eligible under the Urbanized Area Formula program. This includes operating assistance, with a 50 percent local match required for job access and reverse commute activities. In addition, the urbanized area formula for distributing funds now includes the number of low-income individuals as a factor. There is no floor or ceiling on the amount of funds that can be spent on job access and reverse commute activities. Services for the White Rock Affordable Housing might be eligible for this funding, as well as services connecting to the Iron Point Connector or Commuter runs.

- *Expanded eligibility for operating expenses for systems with 100 or fewer buses:* MAP-21 expands eligibility for using Urbanized Area Formula funds for operating expenses. Previously, only urbanized areas with populations below 200,000 were eligible to use Federal transit funding for operating expenses. Now, transit systems in urbanized areas over 200,000 can use their formula funding for operating expenses if they operate no more than 100 buses. Systems operating between 76 and 100 buses in fixed route service during peak service hours may use up to 50 percent of their "attributable share" of funding for operating expenses. Systems operating 75 or fewer buses in fixed-route service during peak service hours may use up to 75 percent of their "attributable share" of funding for operating expenses. This expanded eligibility for operating assistance under the Urbanized formula program excludes rail systems. El Dorado Transit would fall under the category of 75 or fewer buses in fixed-route service.

- *New takedown for safety oversight:* MAP-21 sets aside one half of one percent (approximately $22 million per year) of Urbanized Area Formula funds for State safety oversight grants (see above section on safety).

El Dorado Hills and Cameron Park are included in the Sacramento Urbanized Area. El Dorado Transit is eligible to receive these funds through the Sacramento Area Council of Governments (SACOG) through an allocation process. Approximately $245,000 is available on an annual basis for major maintenance.

FTA Section 5311 Rural Area Formula Grants

This program provides capital, planning, and operating assistance to support public transportation in rural areas, defined as areas with fewer than 50,000 residents. Funding is based on a formula that uses land area, population, and transit service. The program remains largely unchanged with a few exceptions:

- *Job access and reverse commute activities eligible:* Activities eligible under the former Job Access and Reverse Commute (JARC) program, which provided services to low-income individuals to access jobs, are now eligible under the Rural Area Formula program. In addition, the formula now includes the number of low-income individuals as a factor. There is no floor or ceiling on the amount of funds that can be spent on job access and reverse commute activities.

- *Tribal Program:* The Tribal program now consists of a $25 million formula program and a $5 million discretionary grant program. Formula factors include vehicle revenue miles and the number of low-income individuals residing on tribal lands.

- *Other Programs:* The set-aside for States for administration, planning, and technical assistance is reduced from 15 to 10 percent. The cost of the unsubsidized portion of privately provided intercity bus service that connects feeder service is now eligible as in-kind local match.

The FTA 5311 grant program has been an important revenue source for El Dorado Transit in the past. In California, a 16.43 percent local match is required for capital programs and a 47.77 percent match for operating expenditures. The bulk of the funds are apportioned directly to rural counties based on population levels. The remaining funds are distributed by Caltrans on a discretionary basis and are typically used for capital purposes. El Dorado Transit anticipates approximately $621,000 in FTA Section 5311 funds in FY 2013-14, which is a substantial increase over recent years.

FTA Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities

This program provides formula funding to increase the mobility of seniors and persons with disabilities. Funds are apportioned based on each State's share of the targeted populations and are now apportioned to both non-urbanized (for all areas with population under 200,000) and large urbanized areas (over 200,000). The former New Freedom program (5317) is folded into this program. The New Freedom program provided grants for services for individuals with disabilities that went above and beyond the requirements of the Americans with Disabilities Act (ADA). Activities eligible under New Freedom are now eligible under the Enhanced Mobility of Seniors and Individuals with Disabilities program.

Projects selected for funding must be included in a locally developed, coordinated public transit-human services transportation plan; and the competitive selection process, which was required under the former New Freedom program, is now optional. At least 55 percent of program funds must be spent on the types of capital projects eligible under the former section 5310 -- 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. The remaining 45 percent may be used for: 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; or, alternatives to public transportation that assist seniors and individuals with disabilities. Using these funds for operating expenses requires a 50 percent local match while using these funds for capital expenses (including acquisition of public transportation services) requires a 20 percent local match. In the past, El Dorado Transit has been awarded 5310 funds for DAR vans.

STATE TRANSIT FUNDING SOURCES

Transportation Development Act Local Transportation Fund Program

A mainstay of funding for transit programs in California is provided by the Transportation Development Act (TDA). The major portion of TDA funds are provided through the Local Transportation Fund (LTF). These funds are generated by a one-fourth cent statewide sales tax, returned to the county of origin. The returned funds must be spent for the following purposes:

- Two percent may be provided for bicycle facilities per TDA statues.
- The remaining funds must be spent for transit and paratransit purposes, unless a finding is made by the Transportation Commission that no unmet transit needs exist that can be reasonably met. (Article 4 or 8)
- If a finding of no unmet needs reasonable to meet is made, remaining funds can be spent on roadway construction and maintenance purposes. (Article 8)

In recent years, no TDA funds are typically allocated to streets and roads. In FY 2013/14, LTF funding is anticipated to equal approximately $3.4 million.

State Transit Assistance (STA) Funds

In addition to LTF funding, the TDA includes a State Transit Assistance (STA) funding mechanism. The sales tax on gasoline is used to reimburse the state coffers for the impacts of the 1/4 cent sales tax used for LTF. Any remaining funds (or "spillover") are available to the counties for local transportation purposes. In recent years, this has been a volatile funding source. As a result, EDT typically allocates these funds for capital purchases, rather than relying on them for ongoing operating funding. El Dorado Transit anticipates $0.94 million in STA revenues for FY 2013/14.

Toll Funds in Lieu of Non-Federal Match Funds

Federal-aid highway and transit projects typically require the project sponsors to provide a certain amount of non-federal funds as match to the federal funds, as described above. Through the use of "Transportation Development Credits" (sometimes referred to as toll revenue credits), the non-federal share match requirement in California can be met by applying an equal amount of Transportation Development Credit and therefore allow a project to be funded with up to 100% federal funds for federally participating costs. Caltrans has been granted permission by the FTA to utilize toll credits, and has begun to make credits available for FTA Section 5310, 5311, and 5316 programs.

LOCAL TRANSIT FUNDING SOURCES

AB 2766 Vehicle Air Pollution Fees

California Assembly Bill 2766 allows local air quality management districts to level a $2 to $4 per year fee on vehicles registered in their district. These funds are to be applied to programs

designed to reduce motor vehicle air pollution, as well as the planning, monitoring, enforcement, and technical study of these programs. Across the state, these funds have been used for local transit capital and operating programs. This is the key funding sources for the Apple Hill® and Fair Shuttle programs.

Sales Tax

A sales tax election could be held with funds to go to transit service. Sales tax is the financial base for many transit services in the West. The required level of sales tax would depend upon the service alternative chosen. One advantage is that sales tax revenues are relatively stable and can be forecast with a high degree of confidence. In addition, sales tax can be collected efficiently and it allows the community to generate revenues from visitors to the area. This source would require a vote of the people to implement. In addition, a sales tax increase could be seen as inequitable to residents not served by transit. This disadvantage could be offset by the fact that sales taxes could be rebated to incorporated areas not served by transit. Transit services, moreover, would face competition from other services which may seek to gain financial support through sales tax.

California law provides the opportunity for counties to become a "self help county" by passing up to an additional half-cent of sales tax for transportation purposes (including transit). To date, 19 of the state's counties (all of the major urban areas, as well as Tulare, Madera and Imperial Counties) have voted to impose this local tax, which is a major funding source behind the larger mass transit systems in the state. Passage requires a two-thirds supermajority approval by the voters, however, which is a challenging hurdle to overcome.

Traffic Mitigation Fees

Traffic mitigation fees are one-time charges on new developments to pay for required public facilities, and to mitigate impacts created by or reasonably related to development. There are a number of approaches to charging developers, however, in all cases, these fees must be clearly related to the costs incurred as a result of the development with a rational connection between fee and development type. Furthermore, fees cannot be used to correct existing problems or pay for improvements needed for existing development. A county may only levy such fees in the unincorporated area over which it has jurisdiction, while a city must levy fees within the city limits. Any fee program must have the cooperation of all jurisdictions affected. El Dorado Transit is included in the TIM fee program for the region. In the past, this source has funded Park-and-Ride improvements, as well as bus purchases.

Contract Revenues

Transit systems also often generate income through revenues associated with contracted services. EDT currently contracts with M.O.R.E. and other agencies to provide specialized transportation services. EDT should continue to evaluate requests for service as agencies in the region wish to expand access to their programs.

Advertising

One modest but important source of funding for many transit services is on-vehicle advertising. The largest portion of this potential is for exterior advertising, rather than interior "bus card" advertising, as the potential funds generated by advertising placed with the vehicles is comparatively low. EDT has generated revenue from bus advertising in the past, but the most recent request for proposals yielded no responses. In addition, managing an advertising program requires staff time, and runs the potential to overload the bus with excessive advertising. Nevertheless, this could be an important source of discretionary revenue[8]. Given the general improvement in the economy, it is a good time to redouble efforts regarding an advertising program.

[8] As an example, the smaller Amador Transit program serving Amador County generates approximately $34,000 per year in bus advertising revenues.

This page left intentionally blank

Chapter 10
Short-Range and Long-Range Transit Plan

This chapter presents plans for two time-frames: a short-range plan for the period from Fiscal Year 2014/15 through 2018/19, and a long-range plan extending to 2035. Much of the background information and analysis regarding the various plan elements is presented in previous chapters; the reader is encouraged to refer to previous chapters for additional details.

SHORT RANGE PLAN

SHORT RANGE SERVICE PLAN

This service plan presents the year-by-year improvements to transit services for the upcoming five-year period. It reflects the fact that the EDCTA Board recently adopted two changes to their services and policies: (1) conversion of the Diamond Springs, Cameron Park and Pollock Pines routes to fixed service (with complementary paratransit), and (2) modifications to the paratransit reservation policies. Figure 38 presents a graphic overview of the short-range service plan.

El Dorado Hills Taxi Voucher Program

El Dorado Transit should establish a taxi voucher program for residents of El Dorado Hills, pending successfully negotiating an agreement with one or more qualified taxi companies. As detailed below, the taxi voucher concept takes advantage of existing private transportation providers by providing subsidies to eligible citizens to purchase transportation services at a discount:

Eligibility -- Taxi voucher participants must be residents of El Dorado Hills, with a residence within the El Dorado Hills Census Designated Place, as defined by the US Census Department. Residents wishing to participate in the program would need to register with El Dorado Transit by providing proof of residency (such as a driver's license and a utility bill with local address). To receive discounted voucher fares, participants would need to apply for ADA eligibility, currently a process available through a paper application available at the El Dorado Transit offices or at http://www.eldoradotransit.com/assets/pdf/forms/adaapp.pdf. Once participants are registered, they would be able to purchase vouchers by phone, mail or online. In addition, El Dorado Transit could make arrangements with local organizations (such as the CSD or Senior Center) to sell vouchers.

Fares – Establishing a fare for a new transit program must consider the question of equity between various types of passengers, as well as the impact of fares on the operation of the service. There are two general ways that equity can be considered:

- **Equity based on the availability of transit service at equal fares throughout the service area**. The argument **for** this position is that, if a fixed-route service had been found to be feasible in El Dorado Hills, El Dorado Transit would be charging the same fare ($1.50 general public / $0.75 reduced fare) as on the other existing fixed routes. As it was not found to be feasible, the taxi voucher program will be implemented in its place – in part because it is less expensive than operating fixed

route. It can be argued that El Dorado Hills residents should not be burdened with a higher fare in order to generate savings to the transit program. The argument **against** this position is that in reality a taxi voucher service is more similar to Dial-A-Ride service than fixed route, as it comes directly to a passenger's home and provides a single-seat trip to the final destination. As more of a Dial-A-Ride service, it is more equitable to set a fare equal to the DAR fare (which presently is $6.00 general public / $3 reduced fare in El Dorado Hills).

- **Equity based on the level of subsidy** – Under this option, fares are set to try to balance the operating subsidy funds needed to serve passengers in various communities. This is the approach taken in the setting of the existing Dial-A-Ride fares, which results in higher fares for the more outlying areas (requiring more deadhead from the operating base in Diamond Springs). Another way to think of this is that all residents of the area have the same "right" to similar levels of public subsidy for transit service. The Fiscal Year 12/13 subsidy per passenger-trip on the existing local routes ranges from $6.32 (Diamond Springs Route) to $8.09 (Cameron Park Route), while the forecast subsidy for the El Dorado Hills taxi voucher program is $14.80. This would argue for a higher fare for the taxi voucher service than for the local routes. The subsidy required per trip for Grizzly Flat flex-route ($28.66) and the fact that EDT charges a higher fare for that service ($10 general public /$5 reduced fare) also is an argument for a higher EDH fare.

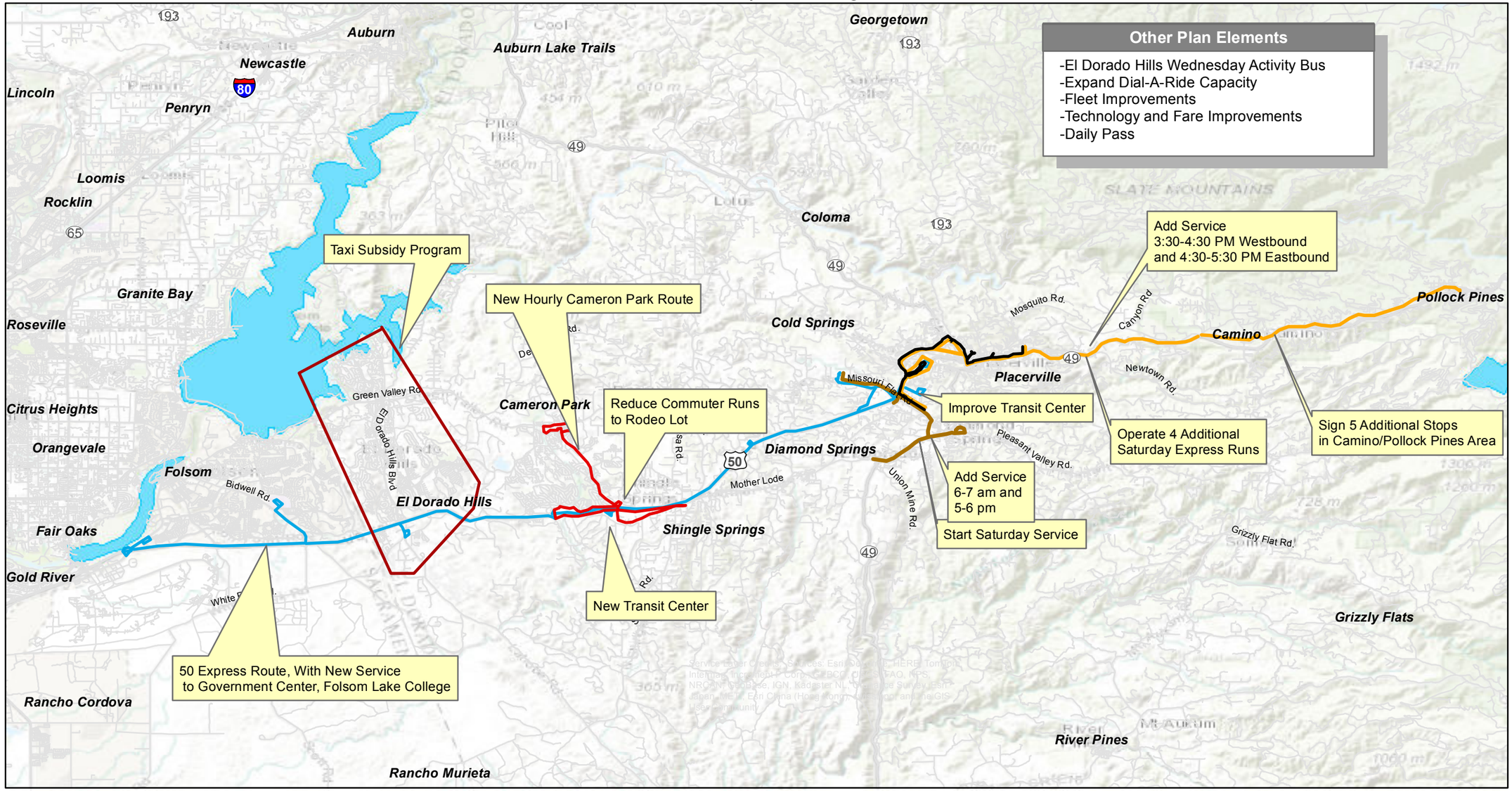
Another consideration beyond the question of equity is establishing a fare that does not result in demand that exceeds the available funding. There have been taxi voucher programs in other areas that have set fares too low, thereby generating a level of demand that results in subsidy payments to the taxi operators that exceeds the annual budgeted amount before the end of the fiscal year, resulting in the difficult choice of suspending the program or shifting funds from other transit services to expand the taxi voucher program.

Given that there are a lot of uncertainties regarding the potential ridership level (as there are few examples of similar taxi-only service areas on which to base an estimate), it is the Consultant's recommendation to start the program with a relatively high fare of $6.00 general public /$3.00 reduced fare and monitor how the program unfolds over the initial six months. Then if actual ridership does not "use up" all of the budgeted subsidy funds, lower fares could be considered as a means of expanding the ridership.

If multiple passengers share a taxi ride, the fare would be $3.00 if there is at least one ADA-eligible passenger or $6.00 if there are no ADA-eligible passengers. The maximum number of passengers carried by the taxi provider for one voucher would be at the discretion of the taxi company.

Tipping -- El Dorado Transit has expectations of high quality customer service from all of its drivers, none of whom receive tips. It is therefore reasonable to establish a taxi voucher program where tips are not allowed, but a high level of customer service is expected. This issue should be

Figure 38
Western El Dorado County Short Range Transit Plan



This page left intentionally blank.

negotiated as part of the taxi company selection process. One option would be for the negotiated flat rate fare to include a $1.50 tip to be paid by the taxi company to the individual driver for each voucher trip provided. If drivers do not perform at a satisfactory level or if they solicit tips, they would be reported to El Dorado Transit and disciplinary action should follow (such as banning the driver or the taxi company from participation in the program).

Program Funding -- As El Dorado Transit must have a means of controlling its budget, the taxi voucher program must have a fixed maximum annual cost. The program is expected to generate 3,000 ADA-eligible trips and 3,000 general passenger trips per year. This equates to $72,000 annually in taxi fares paid to the taxicab companies. Passengers would pay $22,500 of this in fares, with $49,500 in subsidy remaining. Administrative costs would be an additional $38,000 annually, at least in the initial year when contracts and billing procedures are being established. This would bring the total operating cost to $110,000 and require a subsidy of $87,500 annually, which is the recommended limit for the first year of the program.

Vouchers -- To create equity within the community, sales of vouchers will be limited by month and by individual. No individual will be able to purchase more than ten vouchers per month, except on a case by case basis for medical needs. Only one voucher may be used per taxi trip. Vouchers will be non-transferrable and will have an expiration date (though they could be returned for full reimbursement of purchase price). The taxi vouchers will be valid for any trips within El Dorado Hills. If passengers travel beyond El Dorado Hills, only the portion within El Dorado Hills is subject to the rules of the Taxi Voucher program, and additional costs incurred are the responsibility of the passenger, including tips. One option that should be discussed in negotiations with the taxi companies is to establish a second flat-fee zone for the nearby portion of Folsom (such as those areas south and east of Oak Avenue Parkway, Blue Ravine Road, and Green Valley Road). While no additional subsidy would be provided for service to/from Folsom, the certainty of a flat-fee zone would increase the convenience of the program to residents of El Dorado Hills.

Scheduling a Taxi Voucher Trip – To limit the potential for misuse, vouchers should only be valid for use between 7:00 AM and 10:00 PM. Voucher holders will receive a brochure when they purchase their vouchers, providing guidelines for using the taxi program, including a list and phone numbers of participating taxi providers. Voucher holders will simply call one of the taxi companies to make a trip request. There are two types of taxi ride requests that could be made: (1) if the passenger is ready to be picked up immediately, they call and request a ride, and the taxi driver would arrive within 45 minutes of the call, or (2) if the passenger wishes to be picked up at a specific time more than 45 minutes from the call, the passenger may place a time order request. For example, a passenger could call at 9:00 am and request a pick-up for any time after 9:45 am. These trips would be scheduled to arrive no more than 10 minutes on either side of the scheduled pick-up time. When picked up, the voucher holder would present the driver with a signed voucher and the appropriate fare.

Minimum Taxi Company Requirements -- Taxi companies wishing to participate in the Taxi Voucher program should be required to meet minimum standards and agree to the rules and expectations set forth by El Dorado Transit. These requirements will be clearly identified in contracts developed by El Dorado Transit. Items the contract should cover include the following:

- *Vehicle Standards*: Vehicles need to be clean and in good operating condition. Taxi companies need to have at least one wheelchair accessible vehicle and need to be prepared to respond to all requests for wheelchair accessible rides.

- *Training*: Drivers would to be trained in how to accommodate passengers with disabilities, and also participate in a discussion with El Dorado Transit staff regarding the goals and requirements of the Taxi Voucher program.

- *Customer Service:* Taxi companies need to agree to provide a high level of customer service. Voucher holders would be informed of a complaint process when purchasing vouchers. Taxi companies which receive multiple complaints might be subject to expulsion from the program.

- *Documentation:* Taxi providers will be required to track all ride requests and all service delivery. Information that would be tracked for each trip would include the following:

  - Name of Voucher holder
  - Number of passengers
  - Voucher number
  - Requested time of trip
  - Actual pick up time, and pick up location
  - Drop off time and location
  - Trip mileage
  - If a wheelchair was accommodated on the trip

This data should be included in a monthly summary provided by each participating taxi provider. The monthly report should include:

- Total ADA Vouchers Used
- Total General Public Vouchers Used
- Actual vouchers used
- Total Cost to be reimbursed to the Taxi Company (at $9.50 per ADA trip and $7.00 per General Public trip)
- Total Passengers carried
- Total Passengers with wheelchair carried
- Total mileage operated
- Total hours of service operated
- An explanation of any trip requests which were not satisfied.
- A brief narrative of operational issues that occurred during the month

In addition to serving an important element of the overall El Dorado Transit service area, this plan element increases the equity of El Dorado Transit service by providing a cost-effective means of serving transit needs in El Dorado Hills (which otherwise does not have public transit service beyond the through services along US 50). It will also provide the region with experience in taxi

subsidy programs, which could be useful in assessing future expansion of such programs to other areas.

US 50 Express Service / Increased Cameron Park Service

This plan element has two components: conversion of the existing Iron Point Connector to a US 50 Express route, and revisions to the Cameron Park Route to provide hourly service within Cameron Park and coordinate with the US 50 Express.

US 50 Express

The Iron Point Connector route should be converted into the US 50 Express Route, using a single bus to provide consistent service every two hours between the El Dorado County Government Center and Folsom, as shown in Figure 38 (in Chapter 10). This route generally is consistent with the existing Iron Point Connector Route, with the following changes:

- The number of stops in Folsom is reduced to Iron Point Station and Folsom Lake College (scheduled) plus Kaiser Permanente on a request basis (when it serves El Dorado County residents). This allows the running time of the route to be reduced by using US 50 in both directions. Detailed analysis of passenger activity at the other stops showed very little ridership, of which most were trips to/from Iron Point Station.

- In addition, either Iron Point Station or Folsom Lake College will be served on any one run, but not both (except for the last run of the day), as presented in Table 48, above. This provides the running time to allow service to the El Dorado County Government Center, starting at 8:43 AM. Iron Point Station should be served on the AM and PM peak commute runs, to accommodate the existing El Dorado County residents accessing the light rail service at these times. From 8:57 AM to 6:09 PM (with the exception of 4:57 PM) hourly service would be provided to Folsom Lake College. Note that transfers can be made to Folsom Stage transit service at both Folsom Lake College and Iron Point Station.

- Folsom Lake College – El Dorado Campus (and adjacent Child Development Center) are typically served in one direction (westbound). (Between the Diamond Springs Route serving the campus before the top of the hour and the 50 Express Route serving the campus after the top of the hour, passengers can directly transfer to/from the Placerville and Pollock Pines Routes both to and from the campus.) For the first run of the day, the El Dorado Campus is served eastbound, in order to meet schedule times at the Child Development Center.

- A stop in Cameron Park at Rodeo Road (near Cameron Park Place) is added. The service is scheduled to provide both buses at this stop within a few minutes of each hour, allowing the Cameron Park Route to transfer directly to both 50 Express buses in both directions.

- Several other stops (notably the Ponderosa Road Park and Ride and the Cambridge Road Park and Ride) are served on demand only in lower demand periods (identified from existing ridership patterns).

- The route is “rebranded” as the 50 Express. The existing Iron Point Connector was implemented primarily to provide a transit connection to the Sacramento RT light rail system (at the Iron

Point Station). Under this plan, however, the route would serve additional purposes, specifically expanded transit access along the US 50 corridor in El Dorado Hills. The revised name better reflects the role of the service.

- The buses would serve the Missouri Flat Transfer Center at the top of the hour (including a minimum 9 minute scheduled driver layover). This timing allows direct transfers between the 50 Express and the Placerville Routes in both directions, from the Diamond Springs Route arriving from Diamond Springs, and the Diamond Springs Route departing to Folsom Lake College – El Dorado Center.

Cameron Park Route Revisions

The existing Cameron Park Route currently serves Cameron Park as well as connecting to Missouri Flat via the Red Hawk Casino and Folsom Lake College – El Dorado Center, on a roughly two-hour route, operated four times a day. This should be converted to an hourly route within the Cameron Park area only. Direct transfers should be provided to/from the 50 Express Route buses at Rodeo Road, near Cameron Park Center.

As shown in Table 49 (in Chapter 10), the schedule would allow layover time at Rodeo Road to provide direct connections to and from the 50 Express buses in both directions.

As shown in Figure 29 (in Chapter 10), departing this transfer point the bus should traverse the following route:

- Service northward along Cameron Park Drive, serving a loop at the north end consisting of Green Valley Road, La Crescenta Drive, La Canada Drive, Cimmarron Road and Cambridge Road, returning along Cameron Park Drive. Golderado Center (in the northeast quadrant of US 50 and Cameron Park Drive) would be served on the scheduled in both direction, while Marshall Medical would be served on request.

- After serving a stop at Cameron Park Center (the commercial center in the southwest quadrant of US 50 and Cameron Park Drive) in the southbound direction on Cameron Park Drive, the bus would travel east on Durock Road, serving scheduled stops as well as a request stop at Market Street. Existing stops at the Durock Center and on Mother Lode Drive would be served, with Ponderosa Road Park and Ride served on request.

- The bus would then access US 50 eastbound, proceed directly to the Cambridge Road Park and Ride[9], and then will serve the stops eastbound along Country Club Drive before returning to the Rodeo Road transfer point.

Service should be provided from 6:30 AM until approximately 6:00 PM. With a layover/driver break at Rodeo Road from 18 after the hour to 30 after the hour, this schedule allows direct transfers to the 50 Express buses in both the eastbound direction (23 after) and westbound direction (28 after).

[9] As the Cameron Park bus will not be at this stop at the same time as the 50 Express bus, the limited bus capacity of this stop should not be an issue.

Wednesday Activity Bus Service (Demonstration Program)

El Dorado Transit should implement a one-day-a-week "Activity Bus," on a demonstration basis. An additional van should be made available for demand-response service every Wednesday between 8 AM and 4 PM[10]. El Dorado Hills residents[11] could reserve trips no more than 14 and no less than 2 days in advance (closing reservations at 5 PM on Monday). If less than five one-way trip requests are received by 5 PM on Monday, service would not be operated. In addition, trips would be accommodated on an on-call and as-available basis on the day of service. One-way fares should be $4.00 for the general public, and $2.00 for seniors, persons with disabilities, and Medicare card holders. Dispatchers would negotiate with passengers to group trips to key destinations at key times.

This service would provide a second travel option for those not choosing to enroll in the taxi voucher program. Service should be reviewed on at least a quarterly basis to assess the need for changes. After one year, the service should be made permanent if ridership attains a minimum of 2.0 passenger-trips per hour of service.

Improve Placerville Route On-Time Performance

El Dorado Transit should make the following revisions to improve the on-time reliability of the Placerville Route:

- Eliminate request stop service on the Placerville Route to Broadway/Point View Drive and Camellia Lane, and instead serve Broadway/Point View Drive and Camellia Lane on request on the Pollock Pines Route. While this will reduce service availability to these stops to hourly, it is no longer possible to include these stops on the Placerville Route given overall running time constraints.

- Eliminate the request stop at Phoenix Center (Mallard Lane).

- Make Coloma Court a request stop from 10:00 AM to 2:00 PM. This will save substantial time on runs with a deviation request at the El Dorado High School but not a request at Coloma Court. Often during this mid-day period there are no passengers boarding at Coloma Court.

- Relocate the bus stop at Raley's to avoid the bus traveling across the front of the store and conflicting with pedestrians and speed bumps. This will require working with the store owners to identify a spot where the bus can load/unload for up to 6 minutes without unduly blocking traffic or parking.

These changes are needed to address on-time performance problems on the existing service. A recent review indicates that 41 percent of eastbound runs operated behind schedule, as well as 46 percent of westbound runs. In particular, the many "request only" stops slow the service. An evaluation of the ridership served by each request deviation and the impact on running time was conducted to identify the planned changes in request-stop service.

[10] In a week when Wednesday is a holiday, service should be offered on Tuesday.
[11] Residing within the El Dorado Hills Census Designated Place boundaries.

Designate More Stops along Pollock Pines Route

El Dorado Transit should work to establish defined, signed stops at Alder Drive/Pony Express, Blair Road/Pony Express, Trap Lane/Pony Express, Kimberly Lane/Pony Express, and School Street/Pony Express (rather than the existing flag stops). These stops are frequently used, and establishing a signed stop would ensure that passengers know where to wait, that drivers consistently stop in the same location, and that the transit service has a higher profile in the community. It should be noted that simply placing a pole and bus stop sign does not trigger the need for additional improvements to address Americans with Disabilities Act requirements, as any more extensive improvements would.

Extend Weekday Service on Placerville, Pollock Pines and Diamond Springs Routes and Complementary Paratransit by One Hour

One additional hour of service should be added on weekdays on the Placerville, Pollock Pines and Diamond Springs Routes. In addition, the hours of complementary paratransit service should be extended, as required by the ADA. At present, the last daily departure time for any individual stop is 5:00 PM on the Placerville and Diamond Springs Routes, 4:30 PM on the eastbound Pollock Pines Route, and 3:30 PM on the westbound Pollock Pines Route. This effectively precludes employees leaving work at 5:00 PM from using the transit service, and also impacts many other types of trips (such as after-school trips). Based on the trip patterns observed at El Dorado Transit and similar transit programs, this will be a relatively cost-effective service expansion. Note that the US 50 Express plan element discussed above will extend Cameron Park Route service until 5:50 PM.

Start Weekday Diamond Springs and Placerville Routes One Hour Earlier

El Dorado Transit should modify the schedules for the Diamond Springs and Placerville Routes to begin service at 6:00 AM, rather than 7:00 AM. These routes currently have particularly strong ridership on the initial runs, and providing service prior to 7:00 AM will increase passenger's ability to travel for work and school – particularly for those needing to transfer between these two routes.

Expand Saturday Local Route Service

Fixed route transit services on Saturday should be expanded as follows:

- The **Saturday Express** runs should be expanded by adding eastbound runs from the Missouri Flat Transit Center at 12:00 Noon and 4:00 PM, and adding westbound runs from Pollock Pines at 8:00 AM and 12:00 Noon. This will provide a consistent operating plan throughout the day, and expand the hours of service available to transit passengers throughout the corridor between Missouri Flat and Pollock Pines.

- Operate **Diamond Springs Service** on Saturday 9 AM to 5 PM, in order to expand the geographic area of Saturday service and access important activity centers.

Combined, these improvements would provide a level of transit service on Saturdays more comparable to that found in other similar California settings, where cost-effective.

Improve Transit Services to El Dorado County Offices

Many of the operating plan elements discussed above will enhance access to and between various El Dorado County social service offices. In particular, the revisions to the Cameron Park route will provide service (not currently available) to the Department of Probation office on Durock Road, and the 50 Express Route will expand the number of daily connections between Cameron Park and the Placerville/Diamond Springs area from four to six in each direction. Expanded hours of weekday transit service will increase the ability of clients to access all social service sites. Finally, expansion of Saturday service will expand transit mobility for residents of transitional housing.

Reduce Sacramento Commuter Service to Rodeo Lot

The Rodeo Lot stop should be dropped from the schedule of Sacramento Commuter Routes 1 and 7 in the morning and Routes 4 and 7 in the afternoon, to reduce delays for through passengers. As passengers can shift to other park-and-ride locations, overall impact would be minimal on the few passengers using this stop on these runs (averaging less than 2 per run), but would save 4-5 minutes in running time for through passengers as well as reducing operating costs.

Expand Dial-A-Ride Capacity over Time as Demand Warrants

With growth in the overall population in general and the senior population in particular, demand for Dial-A-Ride service is expected to increase at a modest rate over the short-range planning period. As needed to address capacity constraints, up to 6 additional vehicle-hours of service should be added per weekday (a 10 percent increase over existing levels) under this plan.

Consider Apple Hill Shuttle Service

While the Apple Hill Shuttle is not currently planned to be operated in 2014, El Dorado Transit should be open to considering operation in the future if operational issues can be solved and funding identified.

Additional Service Enhancements (Financially Unconstrained)

In addition to the service plan elements presented above, the following are additional enhancements that warrant consideration in the plan period if additional operating subsidy funding becomes available:

- **Jointly operated transit service connecting western El Dorado County with South Lake Tahoe.** This study, which focuses on the feasibility of transit services solely from the perspective of western El Dorado County, did not find transit service to South Lake Tahoe to be cost effective. A previous study encompassing a broader region (the *Tahoe Interregional/Intraregional Transit Study*, TRPA, 2006), however, found that seasonal transit services along the US 50 corridor between Stateline, Placerville and Sacramento could be

effective if a coalition of local funding sources could leverage state/federal funding. EDCTA and El Dorado Transit should be open to partnering with other organizations (such as the Tahoe Transportation District, Tahoe Metropolitan Planning Organization, and Sierra-At-Tahoe Resort) for possible coordinated services along the corridor.

- **Provision of One-Day-A-Week Service between Georgetown, Cool and Auburn.** This would provide lifeline access for residents of the northern portion of the county to medical services, shopping and recreation.

- **Operation of a second bus on the 50 Express Route**. This would allow hourly service.

- **One additional AM and one additional PM run on the Sacramento Commuter service.** The importance of this enhancement would be increased if overcrowding of existing services becomes an issue.

- **Provision of Saturday Express runs eastbound at 8:00 AM and westbound at 4:00 PM.**

No funds are allocated in this plan towards these financially unconstrained short-range service elements.

SHORT RANGE CAPITAL PLAN

The capital improvements discussed below are needed to support the service enhancements discussed above, as well as to improve El Dorado Transit operations and passenger comfort/security.

Bus Purchases for Replacement and Fleet Expansion

A total of 32 buses will require replacement over the next five years, consisting of 18 buses and 14 minivans. In additional, one minivan will be needed for Dial-a-Ride expansion and one existing staff vehicle will require replacement.

As buses are purchased for local route services, El Dorado Transit should consider low floor models. Low floor buses are easier for passengers (particularly the elderly and disabled) to negotiate, and boarding/deboarding is both faster and less hazardous. In addition, rather than complicated lifts, wheelchairs can be accommodated by simple ramps, which reduces maintenance costs and increases dependability. While low floor buses have smaller seating capacity for the length, but that is not a big issue on the existing fixed routes. With lower ground clearances, low floor buses may have difficulty negotiating some of the hilly streets along the El Dorado Transit routes (particularly the on-request portions of the Placerville Route). Prior to investing in low-floor buses, a bus should be borrowed from a vendor or nearby transit system to run the routes and identify any operational issues. However, low floor buses are becoming the norm for smaller fixed route urban systems, and El Dorado Transit should use them if feasible. For purposes of this plan, it is assumed that bus purchases starting in Fiscal Year 16/17 are low floor models.

Retired Van Donation Program

El Dorado Transit should adopt a policy that makes older vans available to qualifying local non-profit and governmental social service programs as they are retired from active service. While not up to the rigors of continual public transit service, these vans often can provide additional useful life to programs with less frequent needs for service. In addition to providing a benefit to social service programs, this program can reduce El Dorado Transit's costs of dial-a-ride service, particularly for programs in more remote portions of western El Dorado County. The policy should set criteria qualifying entities, and for appropriate use of the vehicle.

Rely on Clean Diesel Fuel

Considering the significant capital costs that would accompany a shift to a different fuel, the dramatic improvements in emissions of diesel engines over recent years, and the power requirements imposed by the significant grades on many routes, El Dorado Transit should continue to rely on clean diesel as the primary fuel option for the transit fleet. However, the technology and availability of alternative fuels can change rapidly, and costs are constantly in flex. As such, El Dorado Transit should monitor trends in the availability/cost of alternative fuels as well as the experience of the public transit industry, and should consider options and conditions change.

Missouri Flat Transit Center Improvements

The existing Missouri Flat Transfer Center should be improved, as follows:

- Extension of the bus bay (currently approximately 100 feet in length) to a minimum of 200 feet in length, in order to accommodate up to five buses at a time (including the 50 Express and a layover/trade-out vehicle).

- Expand shelter and seating capacity.

- Enhance lighting on pedestrian paths connecting the Center with adjacent commercial properties.

With these improvements, the Center will serve as the long-term hub of transit services in the Diamond Springs/western Placerville area.

Cameron Park Transit Center

A modest transit center should be constructed in Cameron Park in the commercial district along Cameron Park Drive south of US 50, in order to accommodate transfers between the 50 Express and Cameron Park Routes. A focused study will be needed to identify the best location able to (1) accommodate a minimum of three buses on-site at a time, (2) provide safe movements of transit buses, passengers and cyclists, (3) accommodate shelters and outside seating areas accommodating a minimum of 30 passengers at a time, and (4) minimizing running time on the transit routes.

Signal Pre-Emption and Jump-Queue Lanes on Key Corridors

Advanced traffic signal controls to speed transit service and provision of "jump-queue" or "right-turn-only-buses-excepted" lanes are two increasingly-common means of increasing transit efficiency and ridership, with minimal impact on other motorists. Considering the frequency of transit vehicle movements under this plan, these strategies have the potential to be warranted along Missouri Flat Road (US 50 to SR 49), El Dorado Hills Boulevard (US 50 to White Rock Road) and at the key park-and-ride lots between Cameron Park and Placerville. It is recommended that EDCTC seek grant funds for a focused study. As no funds for implementation are included in the financial plan, implementation of study recommendations would be dependent on receipt of future grants.

Park-and-Ride Lot Improvements

Lack of capacity of El Dorado Transit's park-and-ride lots (particularly in the El Dorado Hills area) is a significant constraint on the ridership and environmental benefits of the commuter service. In this short-range plan, the following improvements are programmed:

- Complete Ray Lawyer Drive Park-and-Ride – This will provide 150 parking spaces at a new and convenient location along Forni Road just west of Ray Lawyer Drive

- El Dorado Hills Park-and-Ride Improvements. In the short term, El Dorado Transit will use a nearby parking area on Mercedes Lane on a lease basis. A study should be undertaken to define the best long-term solution, possibly in coordination with a new County Line Multimodal Center that can also accommodate Regional Transit service or Folsom Stage extension to El Dorado Hills.

Other improvements that are warranted consist of the following:

- Cameron Park Drive – El Dorado Transit should continue to investigate options to expand parking capacity in a location closer to Cameron Park Drive. Per the 2007 *Park-and-Ride Master Plan* and recent review, on the order of 100 additional parking spaces are needed.

- Cambridge Road – El Dorado Transit should continue to investigate options to expand parking capacity, including potential joint-use facilities.

- Bass Lake Road – El Dorado Transit should participate in planning for a park-and-ride facility as part of improvements in the Marble Valley Specific Plan area.

With the exception of the Ray Lawyer Drive facility, all of these projects are in the advance planning stage. While existing staff resources should be used in the near term to advance these projects, no additional funding is allocated for design or construction.

Bus Stop Improvements

El Dorado Transit should continue to implement an ongoing program of improving amenities at transit stops. This should include shelters at a minimum of nine new locations. Beyond the

funds currently budgeted for FY 2014-15, $20,000 per year (increasing with inflation) is allocated.

Enhance Transit's Role in a Multimodal Alternative Transportation Network

Along with bicycle and pedestrian travel, public transit can play a key role in a comprehensive transportation network for Western El Dorado County (and beyond) that is an alternative to private automobile travel. In particular, transit services can aid in providing the longer inter-community portions of individual trips, while non-motorized modes can serve the shorter local portions.

To fulfill this potential, El Dorado Transit should undertake the following:

- Strive to provide bicycle lockers at all transit centers and park-and-ride facilities, to encourage additional bike-and-ride activity by providing a more secure place for a cyclist to leave a bike.

- Work to ensure that adequate bicycle parking is available at high-activity stops, focusing on those with observed or potentially high bicycle usage. Stops with high observed bicycle use of the bike racks on the transit vehicles should also be reviewed to identify if improved bicycle parking can avoid the need for the passenger to bring their bicycle along on the bus.

- Where physically feasible, provide three-position bicycle racks on transit vehicles.

El Dorado Transit's interest in bicycle/pedestrian facilities extends beyond the bus stop. At one end of their trip or the other, virtually all transit passengers also travel on foot or on bicycle as part of their transit trip. A key element of a successful transit system is a convenient system of sidewalks and bikeways serving the transit stops. El Dorado Transit should continue to work with the planning and public works departments of El Dorado County, the City of Placerville, the City of Folsom, and other jurisdictions in the service area to review construction plans and schedule priorities for pedestrian and bicycle improvements to coordinate with the needs of transit passengers.

Diamond Springs Transit Operations Facility Improvements

The Transit Operations Facility in Diamond Springs should continue to serve as the sole operations site for El Dorado Transit. While this site provides adequate land area to fulfill this key role, there are a number of improvements that are warranted to enhance operational efficiency, security, and employee conditions:

- Expansion of administrative office space
- Additional lifts
- Site signage
- Improvements to heating, ventilation, air conditioning and fire suppression systems
- Addition of a conference/multipurpose room
- Major maintenance of parking areas and roof
- Emergency backup generators
- Additional maintenance equipment

The cost of these improvements total $1,584,000.

Advanced Public Transit System Technologies

Innovations in fare, data collection and communications technologies that should be implemented consist of the following:

- Full implementation of the "Connect Card" Universal Fare Card for Sacramento Region
- Improvements to Mobile Data Terminals and installation in the vehicles.
- Real-time traveler information system that can provide access to vehicle location information and trip planning software via the internet, including smartphones and video displays in transit centers.
- Automated next-stop announcements and reader boards on transit vehicles.

Wi-Fi on Commuter Buses

El Dorado Transit should install Wi-Fi capability on the commuter bus fleet. This is an enhancement that has proven very popular with riders of many other transit programs, and is rapidly becoming the transit industry standard for longer commuter services. El Dorado Transit should investigate fee programs to offset ongoing access and maintenance costs.

Consider Use of El Dorado Transit Capital Assets to Support Park-and-Ride for Peak Traffic Periods in the Tahoe Region

While the Tahoe region portion of El Dorado County is outside of the specific study area for this plan, the economic health of the Tahoe area is important to the overall county, and traffic issues affect everyone using US 50. Park-and-Ride facilities and transit centers in western El Dorado County could potentially be very useful elements in a regional park-and-ride program for peak season travel periods, and particularly for the increasingly-common special events in the Tahoe area. While not something that El Dorado Transit should actively pursue, the transit agency should be open to working with Tahoe interests to make use of capital assets to increase transit access to the Tahoe area.

SHORT RANGE INSTITUTIONAL/MANAGEMENT PLAN

Revise Performance Measures

As part of this study, El Dorado Transit's performance measurement system has been updated to reflect current conditions and costs. El Dorado Transit should adopt the goals, performance measures and standards presented in Chapter 8 to guide improvements in the transit program over the coming five years.

Marketing Improvements, Including Improvements to Website

El Dorado Transit should implement improvements to marketing materials and efforts over the next five years. Specific strategies will be developed as part of a separate marketing study, currently underway. These strategies should include improvements to social media and web materials, and should be coordinated with the substantial expansions in transit services that will be implemented under this plan.

SHORT RANGE FINANCIAL PLAN

The service and capital improvements presented above will be fully funded through the following financial plan.

Offer a Day Pass within El Dorado County and Establish a Higher Fare for Service to Folsom on the 50 Express Route and a Lower Fare for Travel within El Dorado County

Several changes in the current fare structure should be implemented as part of the 50 Express. Fares for the 50 Express Route should be set equal to the existing local route fare ($1.50 for the general public and $0.75 for seniors, persons with disabilities, Medicare cardholders and K-12 students) for travel within El Dorado County. The higher fares currently charged for Iron Point Connector ($2.50 for general public, and $1.25 for seniors, persons with disabilities, and Medicare cardholders) should be charged for travel to, from or within Folsom. This will make fares for all travel within El Dorado County more equitable.

In addition, a daypass should be offered for travel throughout the local route system (including 50 Express) at a cost of $3.00 for general public and $1.50 for seniors, persons with disabilities, Medicare cardholders and K-12 students. This will allow transfers between local routes (not including the Grizzly Flat flex route) at no additional charge. Persons riding on the daypass into Folsom should be charged the difference between the El Dorado and Folsom one-way fare ($1.00 for general public and $0.50 for discount riders) per one-way trip. This daypass will avoid a significant impact on the total fare charged for passengers currently traveling between Missouri Flat and Cameron Park on a single fare, and will also encourage additional transit trips that include transfers between routes. Overall, this plan element will result in a modest reduction in total fare revenues.

No other changes in fares (such as increase in fare rates) are included in this plan. Barring significant increases in inflation rates, this plan indicates that fare increases will not be necessary to maintain strong financial conditions.

Participation in Regional Transit Pass Program

Building off of previous commitments, El Dorado Transit should implement its elements of the Sacramento region-wide “Connect Card” program. This “smart card” system will be a convenience to El Dorado Transit passengers (particularly those transferring with other transit programs) and provide very useful data regarding passenger travel patterns. It is expected that final revenue sharing and fare price decisions will result in a negligible impact on overall El Dorado Transit fare revenues.

Rely on Existing Subsidy Funding Sources

The following methodology was utilized in developing this Financial Plan:

- First, forecasts of annual operating and administrative costs were developed, as presented in Table 61 for FY 2014/15 through FY 2018/19. "Base case" operating and administrative cost forecasts were estimated based on the existing budget, including $130,000 for additional complementary paratransit service operations. A 2 percent annual inflation rate is applied to estimate base case costs in the absence of any change in service levels. Next, operating and administrative cost estimates were identified for each SRTP element, based upon the analyses presented in previous sections of this document, and consistent with the implementation plan presented below. These costs were also factored to reflect the assumed rate of inflation. Operating and administrative costs by the fifth year of the plan will total approximately $7,719,100, which is 10 percent over the base-case cost of $7,010,000.

- Next, ridership for each SRTP element was estimated, as presented in Table 62. The "base case" ridership reflects expected ridership assuming no changes in service. The ridership impact of each Plan element (including the fare modifications) is then identified and summed. As new services do not immediately attain the full potential ridership, ridership on new services is factored to reflect 75 percent of potential ridership in the first year of service and 90 percent of potential ridership in the second year. For relatively small changes to existing services (such as changes in hours of operation), a 90 percent factor is assumed for the first year and full ridership thereafter. In addition, ridership (for both base case and for the service improvements) is factored to reflect a 1 percent annual increase in population and associated ridership demand. By FY 2018/19, ridership is forecast to equal 485,600 one-way passenger-trips per year, which is 53,900 trips over the base case forecast of 431,700. This indicates that the plan will result in a 12 percent increase in ridership by the end of the plan period.

- Based on the ridership figures presented in Table 62, the estimated farebox revenues are presented in Table 63. Again, these figures reflect the impacts of the fare modifications. As presented, the base case farebox revenues for FY 2018/19 are estimated at $1,132,400. Implementation of the SRTP elements will increase FY 2018/19 farebox revenues by $102,100, equal to a 9 percent increase.

- The next element necessary in the development of the SRTP is estimation of the capital cost for vehicles, passenger amenities, passenger facility improvements and operating equipment, as shown in Table 62 for each year of the Short Range Transit Plan period. It should be noted that an annual inflation rate of 2.0 percent is reflected in these figures. Based on the capital plan, presented above, the capital costs total $12,230,600 over the five-year period.

The results of Tables 61 through 64 were used to develop the Financial Plan, as presented for each of the five years of the Short Range Transit Plan period in Table 65. In addition to passenger fare revenues, this Financial Plan incorporates the following funding sources:

- Local Transportation Funds (LTF) are the key local source of transit operating funds, currently generating roughly two-thirds of the funds used to operate services. These funds are assumed to increase with inflation (2 percent per year), as well as with population (1 percent per year).

- State Transit Assistance (STA) funding is assumed to increase with inflation by 2 percent per year from the current level. STA funds deferred in previous fiscal years are used in the first few years of the plan for a range of capital investments.

- Federal Transit Administration (FTA) Section 5311 funds are based on current estimates and are assumed to increase by 2 percent per year in subsequent years.

- FTA Section 5310 funds are based on the El Dorado Transit capital budget and the funds needed for vehicle purchases in the three "out years". These funds are matched with Transportation Development Credits (also known as Toll Credits) provided through Caltrans.

- FTA Section 5307 funds are allocated for operating purposes, specifically for preventive maintenance on the vehicles used in the urbanized area. These funds are forecast to increase with inflation, as well as with the annual growth in Sacramento Region population.

- Congestion Mitigation and Air Quality (CMAQ) funds should be used for completion of the Ray Lawyer Drive Park-and-Ride

- Advertising and other and miscellaneous revenues are assumed to increase with the assumed 2 percent rate of inflation.

- AB 2766 Vehicle Air Pollution Fees allocated through the El Dorado County Air Pollution Control District are assumed to continue to fund the Fair Shuttle programs, and to increase by the rate of inflation.

- Proposition 1B PTMISEA (Public Transportation Modernization, Improvement and Service Enhancement Account) funds are allocated to fund a wide range of facility and technology improvements, per the Capital Improvement Plan

- Proposition 1B CTSGP (California Transit Security Grant Program) funds are allocated for in-vehicle and facility security improvements.

The financial plan presented in Table 65 first considers operating costs and revenues. Excess operating funds are then allocated to the Capital Fund. In each fiscal year, total operating funds exceed operating costs by at least $156,000.

As presented in the bottom portion of Table 65, this analysis indicates that positive fund balances can be maintained through the plan period for the Capital Fund, increasing each year to an ending balance in FY 2018-19 of $2,167,700. This will leave El Dorado Transit's finances in a good position to provide local match for capital investments subsequent to the five-year short-range transit plan. In particular, these funds will be needed to help address the need to replace a substantial number of commuter buses in the years after the SRTP plan period.

TABLE 61: Western El Dorado County SRTP - Estimated Operating Cost

All Figures in Thousands

Plan Element	Projected FY14-15	Projected FY15-16	Projected FY16-17	Projected FY17-18	Projected FY18-19	5-Year Plan Total
Base Case Operating Cost (1)	$6,476.2	$6,605.7	$6,737.8	$6,872.6	$7,010.0	$33,702.4
Service Plan Elements						
El Dorado Hills Taxi Subsidy Program	$110.0	$112.2	$114.4	$116.7	$119.1	$572.4
Implement Community -- Express Route Plan With 2 Hr Headway on US 50 Express	$0.0	$190.8	$194.7	$198.6	$202.5	$786.6
El Dorado Hills Wednesday Activity Bus	$16.6	$33.9	$34.5	$35.2	$35.9	$156.2
Extend Placerville, Pollock Pines and Diamond Springs Service by 1 Hour	$113.3	$115.6	$117.9	$120.2	$122.6	$589.6
Start Diamond Springs and Placerville Routes 1 Hour Earlier	$66.6	$67.9	$69.3	$70.7	$72.1	$346.6
Expand Saturday Express Service In Peak Direction	$0.0	$17.7	$18.1	$18.5	$18.8	$73.2
Provide Diamond Springs Service on Saturdays	$0.0	$33.3	$33.9	$34.6	$35.3	$137.1
Reduce Service to Rodeo Lot	-$7.3	-$7.4	-$7.6	-$7.7	-$7.9	-$38.0
Expand Dial-A-Ride	$0.0	$0.0	$35.1	$71.6	$110.6	$217.2
AVL Operating Costs	$0.0	$0.0	$5.2	$5.3	$5.4	$15.9
Subtotal Plan Elements	$299.2	$564.0	$610.3	$658.3	$709.1	$2,661.6
Net Operating Cost (2)	$6,775.4	$7,169.7	$7,348.2	$7,530.9	$7,719.1	$36,543.2

Note 1: The FY 2014-15 costs are based on the EDCTA budget, minus contingency, plus costs for expansion of ADA paratransit and fair shuttle services.
Note 2: This analysis assumes an annual inflation rate of 2 percent.
Source: LSC Transportation Consultants, Inc.

TABLE 62: Western El Dorado County SRTP - Estimated Ridership

All Figures in Thousands

Plan Element	Projected FY14-15	Projected FY15-16	Projected FY16-17	Projected FY17-18	Projected FY18-19	5-Year Plan Total
Base Case Ridership (1)	418.6	418.6	422.9	427.3	431.7	2,119.1
Service Plan Elements						
El Dorado Hills Taxi Subsidy Program	5.1	5.8	5.9	6.0	6.1	28.9
Implement Community -- Express Route Plan With 2 Hr Headway on US 50 Express	0.0	15.1	17.1	17.4	17.8	67.4
El Dorado Hills Wednesday Activity Bus	0.9	1.1	1.1	1.1	1.1	5.3
Extend Placerville, Pollock Pines and Diamond Springs Service by 1 Hour	12.9	14.6	14.9	15.2	15.5	73.1
Start Diamond Springs and Placerville Routes 1 Hour Earlier	4.2	4.8	4.9	5.0	5.1	24.0
Expand Saturday Express Service In Peak Direction	0.0	1.4	1.9	1.9	1.9	7.1
Provide Diamond Springs Service on Saturdays	0.0	2.2	3.0	3.1	3.1	11.4
Expand Dial-A-Ride	0.0	0.0	3.2	3.2	3.3	9.7
Subtotal Plan Elements	23.1	45.0	52.0	52.9	53.9	226.9
Net Ridership	441.7	463.6	474.9	480.2	485.6	2,346.0

Note 1: This analysis assumes that ridership will increase at the same rate as anticipated population growth (2.2 percent).
Source: LSC Transportation Consultants, Inc.

TABLE 63: Western El Dorado County SRTP - Estimated Farebox Revenues

All Figures in Thousands

Plan Element	Projected FY14-15	Projected FY15-16	Projected FY16-17	Projected FY17-18	Projected FY18-19	5-Year Plan Total
Base Case (Excluding Contract Service Revenues)	$1,098.0	$1,098.0	$1,109.3	$1,120.8	$1,132.4	$5,558.5
Service Plan Elements						
El Dorado Hills Taxi Subsidy Program	$23.0	$26.1	$26.6	$27.0	$27.5	$130.1
Implement Community -- Express Route Plan With 2 Hr Headway on US 50 Express	$0.0	$37.8	$42.9	$43.6	$44.6	$168.9
Expand Express Route to Hourly Service	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
El Dorado Hills Wednesday Activity Bus	$2.2	$2.6	$2.6	$2.6	$2.6	$12.7
Extend Placerville, Pollock Pines and Diamond Springs Service by 1 Hour	$15.4	$17.5	$17.8	$18.2	$18.5	$87.4
Start Diamond Springs and Placerville Routes 1 Hour Earlier	$4.3	$4.9	$5.0	$5.1	$5.2	$24.5
Expand Saturday Express Service In Peak Direction	$0.0	$1.7	$2.3	$2.3	$2.3	$8.7
Provide Diamond Springs Service on Saturdays	$0.0	$2.0	$2.7	$2.8	$2.8	$10.2
Georgetown - Cool - Auburn 1 Day a Week Service	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Expand Dial-A-Ride	$0.0	$0.0	$8.5	$8.5	$8.8	$25.9
Daypass	-$10.0	-$10.1	-$10.1	-$10.2	-$10.3	-$50.7
Subtotal Plan Elements	$34.8	$82.5	$98.3	$100.0	$102.1	$417.7
Net Farebox Revenues	$1,132.8	$1,180.5	$1,207.6	$1,220.8	$1,234.4	$5,976.2

Source: LSC Transportation Consultants, Inc.

TABLE 64: Western El Dorado County SRTP Capital Plan

All Figures in Thousands

Plan Element	Projected FY14-15	Projected FY15-16	Projected FY16-17	Projected FY17-18	Projected FY18-19	5-Year Plan Total
Local Route Replacement Bus						
Number of Buses	2	5	2	8	1	18
Total Cost	*$336.0*	*$865.1*	*$672.1*	*$2,742.2*	*$349.6*	$4,965.0
Replacement Minivans						
Number of Vans	4	1	4	1	4	14
Total Cost	*$184.8*	*$46.0*	*$174.8*	*$44.6*	*$181.8*	$632.0
Expansion Minivans						
Number of Vans	0	0	1	0	0	1
Total Cost	*$0.0*	*$0.0*	*$43.7*	*$0.0*	*$0.0*	$43.7
Replacement Staff Car	$0.0	$35.0	$0.0	$0.0	$0.0	$35.0
Park-and-Ride Lot Improvements						
Ray Lawyer Drive Park-and-Ride	$592.7	$592.7	$592.7	$592.7	$0.0	$2,370.8
Missouri Flat Transit Center	$0.0	$270.0	$0.0	$0.0	$0.0	$270.0
Cameron Park Transit Center	$0.0	$0.0	$150.0	$0.0	$0.0	$150.0
Transit Operations Facility Improvements	$1,267.4	$316.9	$0.0	$0.0	$0.0	$1,584.3
Automatic Vehicle Location / Mobile Data Terminals	$0.0	$139.2	$0.0	$0.0	$0.0	$139.2
Real-Time Traveler Information/Automated Stop Announcements	$338.8	$0.0	$0.0	$0.0	$0.0	$338.8
Connect Card	$458.6	$0.0	$0.0	$0.0	$0.0	$458.6
Wi-Fi on Commuter Buses	$0.0	$30.0	$0.0	$0.0	$0.0	$30.0
Website and Information Technology Improvements	$260.0	$0.0	$0.0	$0.0	$0.0	$260.0
Bus Shelters / Bus Stop Improvements	$318.3	$20.5	$21.0	$21.5	$22.1	$403.4
Onboard Video Upgrades	$299.9	$0.0	$0.0	$0.0	$0.0	$299.9
Enhanced Park-and-Ride Maintenance	$125.0	$125.0	$0.0	$0.0	$0.0	$250.0
Total Capital Plan Elements	$4,181.5	$2,440.3	$1,654.3	$3,401.0	$553.5	$12,230.6

Note 1: All costs include 2 percent annual inflation.
Source: LSC Transportation Consultants, Inc.

TABLE 65: Western El Dorado County SRTP Financial Plan

All Figures in Thousands

	Projected FY14-15	Projected FY15-16	Projected FY16-17	Projected FY17-18	Projected FY18-19	5-Year Plan Total
OPERATING PLAN						
Base Case Costs	$6,476.2	$6,605.7	$6,737.8	$6,872.6	$7,010.0	$33,702.4
Operating Plan Elements (From Table 61)	$299.2	$564.0	$610.3	$658.3	$709.1	$2,840.8
Total Operating Costs	$6,775.4	$7,169.7	$7,348.2	$7,530.9	$7,719.1	$36,543.2
Operating Revenues						
Passenger Fares (From Table 63)	$1,132.8	$1,180.5	$1,207.6	$1,220.8	$1,234.4	$5,976.2
Annual LTF Operating Revenues	$3,613.8	$3,724.1	$3,837.8	$3,954.9	$4,075.6	$19,206.2
Annual STA Operating Revenues	$860.6	$877.8	$895.4	$913.3	$931.5	$4,478.6
FTA Section 5311	$635.2	$647.9	$660.9	$674.1	$687.6	$3,305.6
FTA 5307 Preventive Maintenance	$293.7	$307.0	$321.0	$335.5	$350.7	$1,607.9
Interest	$16.0	$16.0	$16.0	$16.0	$16.0	$80.0
Contract Revenues	$498.0	$508.0	$518.1	$528.5	$539.1	$2,591.6
Miscellaneous	$32.1	$32.7	$33.4	$34.1	$34.7	$167.0
AB 2766 Air Quality Mitigation Funds	$31.0	$31.6	$32.3	$32.9	$33.6	$161.3
Total Operating Revenues	$7,113.2	$7,325.7	$7,522.3	$7,710.0	$7,903.2	$37,574.5
Annual Balance: Transfer to Capital Fund	$337.8	$156.0	$174.2	$179.1	$184.1	
CAPITAL PLAN						
Capital Costs (From Table 64)	$4,181.5	$2,440.3	$1,654.3	$3,401.0	$553.5	$12,230.6
Capital Revenues						
Capital Fund	$127.9	$0.0	$176.0	$21.5	$22.1	$347.5
Deferred STA	$1,461.3	$648.4	$0.0	$0.0	$0.0	$2,109.7
FTA Section 5310	$230.3	$504.6	$788.4	$2,467.2	$470.4	$4,461.0
Transportation Development Credits (Toll Credits)	$0.0	$65.4	$97.1	$319.6	$61.0	$543.1
Proposition 1B PTMISEA	$1,866.8	$1,132.7	$317.7	$317.7	$0.0	$3,634.9
Proposition 1B CTSGP	$220.2	$0.0	$0.0	$0.0	$0.0	$220.2
Congestion Management / Air Quality	$275.0	$275.0	$275.0	$275.0	$0.0	$1,100.0
Total Capital Revenues	$4,181.5	$2,626.1	$1,654.3	$3,401.0	$553.5	$12,416.4
Capital Fund Balance						
Beginning Balance	$1,484.0	$1,693.9	$1,849.9	$1,848.1	$2,005.7	
Income -- Transfer from Operating Revenues	$337.8	$156.0	$174.2	$179.1	$184.1	
Income -- Net Capital Revenue	$0.0	$185.8	$0.0	$0.0	$0.0	
Expenses	($127.9)	$0.0	($176.0)	($21.5)	($22.1)	
Ending Balance	$1,693.9	$1,849.9	$1,848.1	$2,005.7	$2,167.7	

LTF - Local Transportation Funds
STA - State Transit Assistance
FTA - Federal Transit Adminisistration
PTMISEA - Public Transportation Modernization, Improvement and Service Enhancement Account
CTSGP - California Transit Security Grant Program

Source: LSC Transportation Consultants, Inc.

SHORT RANGE IMPLEMENTATION PLAN

Fiscal Year 2014-15

- Initiate El Dorado Hills Taxi Subsidy Program
- Expand weekday hours of service
- Implement El Dorado Hills Wednesday Activity Bus
- Reduce Commuter runs serving Rodeo Lot
- Provide Local Route Daypass
- Revise Placerville Route to improve on-time performance
- Implement Retired Vehicle Donation Program
- Conduct focused study of interim and permanent Cameron Park Transit Center
- Prepare plans for Missouri Flat Transit Center improvements
- Implement Transit Operations Facility improvements
- Complete Connect Card fare program
- Purchase 2 buses and 4 vans
- Study and implement website and information technology improvements
- Conduct and implement marking study
- Implement onboard video upgrades
- Implement real-time travel information and automated stop announcements
- Improve bus stops and pedestrian connections
- Conduct park-and-ride maintenance

Fiscal Year 2015-16

- Expand Saturday Express runs and initiate Saturday service on Diamond Springs Route
- Construct Missouri Flat Transit Center improvements
- Establish interim Cameron Park transit stop improvements
- Implement 50 Express Route (1 bus) and revised Cameron Park Route
- Conduct feasibility study of Transit Signal Priority / Jump Queue strategies
- Implement Transit Operations Facility improvements
- Install Wi-Fi on Commuter bus fleet
- Improve mobile data terminals
- Improve bus stops and pedestrian connections
- Conduct park-and-ride maintenance
- Complete Transit Operation Facility major improvements
- Purchase 5 buses, 1 van and 1 staff car

Fiscal Year 2016-17

- Purchase 2 buses (low floor) and 5 vans
- Improve bus stops and pedestrian connections
- Construct permanent Cameron Park Transit Center

Fiscal Year 2017-18

- Purchase 8 buses and 1 van
- Improve bus stops and pedestrian connections

Fiscal Year 2018-19

- Purchase 1 bus and 4 vans
- Improve bus stops and pedestrian connections

LONG RANGE PLAN

LONG RANGE SERVICE PLAN

Based on the analyses presented in previous chapters, the long-range plan for transit services in western El Dorado County is presented below. As there is a high degree of uncertainty regarding long-term population projections and forecasts of funding availability, this plan focuses on general strategies for service. A summary of long range ridership, service, financial and fleet forecasts is presented in Table 66, based upon the analysis presented in Chapter 6, above.

The long range service plan consists of the following elements:

- Continuation of Dial-A-Ride and complementary paratransit services, as augmented to address increases in population and changing mobility needs of the region.

- Full implementation of hourly 50 Express service, including operation of a second bus on the 50 Express Route.

- Revise routes to serve new developments where warranted. Depending on actual future development, El Dorado Transit should be prepared to potentially:

    - Revise the Diamond Springs Route to serve the Diamond Dorado Center.

    - Revise service in Cameron Park area to serve Village of Marble Valley and/or Dixon Ranch. This may require operation of a second bus in this area.

    - Revise the Sacramento Commuter routes to serve new park-and-ride facilities.

- Revise schedules to take advantage of travel time savings provided by signal pre-emption, jump-queue lanes and/or extension of high occupancy vehicle lanes.

- Provide half-hourly service on local routes, as demand warrants and as subsidy funding allows. The potential for half-hourly service to meet the adopted performance standard is highest on the Placerville, Diamond Springs and Pollock Pines Routes.

- Coordinate Services With Public Transit Programs Serving Folsom and Southeast Sacramento County**.** This may include revisions to El Dorado Transit service schedules to

better coordinate with new Folsom Stage and/or RT services connections in El Dorado Hills. However, new El Dorado Transit services outside of El Dorado County along the Capital Southeast Connector are not included in this plan.

TABLE 66: Summary of Long-Range Transit Requirements

Excluding Impacts of Inflation

	Annual Ridership	Annual Vehicle Hours of Service	Annual Operating Costs	Annual Subsidy Requirements	Total Fleet Size
2013	414,400	44,900	$5,530,800	$4,023,600	47
2018	467,600	47,500	$5,740,100	$4,124,200	50
2020	487,900	52,100	$6,162,300	$4,491,800	50
2025	520,400	57,500	$6,595,600	$4,813,600	55
2030	555,300	63,100	$7,045,200	$5,143,700	61
2035	588,900	68,500	$7,477,900	$5,471,500	65
Total Growth	174,500	23,600	$1,947,100	$1,447,900	18
Percent Growth	42%	53%	35%	36%	38%

As presented in Table 66, overall system ridership is forecast to increase by 42 percent between 2013 and 2035. Much of this growth is expected to occur in the next 12 years: ridership is forecast to grow by a full 26 percent by 2025.

By service, the largest growth between 2013 and 2035 (118,400 annual passenger-trips) is forecast to occur on the local fixed-route services. As a whole, the growth in Dial-A-Ride and social service programs will be 97,400 passenger-trips per year. Ridership on the Sacramento Commuter will grow by a relatively modest 6 percent over current levels.

Accommodating this growth in ridership will require the total level of El Dorado Transit service (as measured in annual vehicle-hours) to grow by 53 percent by 2035. The largest growth will be in Dial-a-Ride and social service programs, with an additional 13,500 vehicle-hours per year, followed by growth in the local fixed route service (9,100 vehicle-hours per year). In current dollars, operating cost will increase by 36 percent. Subtracting future farebox revenues, operating subsidy requirements are forecast to increase by 37 percent.

LONG RANGE CAPITAL PLAN

The long-range capital plan consists of the following elements:

- Expansion of the El Dorado Transit fleet to accommodate the growth in services discussed above. By 2035, the El Dorado Transit fleet will increase to approximately 65 vehicles (excluding non-revenue vehicles). Eighteen additional vehicles will be required: ten for expansion of Dial-A-Ride and social service transportation, seven for expansion of local fixed routes, and one for expansion of US 50 service.

- The vehicle fleet should be replaced as necessary in accordance with standard transit industry practice.

- El Dorado Transit should continue to rely on low-sulfur diesel fuel as the primary fuel source for the transit fleet. As technology and the availability of alternative fuels in the area change, El Dorado Transit should consider conversion to other fuel technologies.

- Appropriate innovation in advanced communication and fare technologies should be implemented throughout the El Dorado Transit system as funds are available.

- Park-and-Ride facilities should be expanded as warranted by changes in travel demand, with a focus on the El Dorado Hills and Cameron Park areas.

- The existing El Dorado Transit Administrative/Maintenance Facility should continue to be the operational base for the system, with improvements as needed to accommodate expansion in staff and fleet size. The analysis of future fleet size indicates that, with improvements, this site can accommodate the transit program for at least the next 22 years. Currently, foreseeable conditions do not indicate a need for a second facility, such as in El Dorado Hills.

- The primary passenger facility for the Local Routes should be the Missouri Flat Transit Center. Placerville Station and a Cameron Park Transit Center should also serve as important facilities. A new transit center in near the El Dorado /Sacramento county line should provide a connection between El Dorado Transit and other regional transit programs serving eastern Sacramento County.

- El Dorado Transit should continue to upgrade passenger amenities at bus stops, as warranted by passenger boarding activity.

- "Bus Rapid Transit-Light" enhancements should be implemented as warranted to speed transit movements. These improvements should be focused where the frequency of transit movements and associated operational benefits are concentrated.

LONG RANGE INSTITUTIONAL/MANAGEMENT PLAN

Continue Providing Public Transit Services Through EDCTA

The El Dorado County Transit Authority has proven to be a stable and cost-effective means of providing regional transit services both in Western El Dorado County and connecting to Sacramento County. It takes advantage of the "economies of scale" that come with combining transit systems under "one roof", and the Board has been effective in ensuring equitable allocation of transit resources. EDCTA should remain the institutional structure for public transit services in western El Dorado County, as opposed to several separate transit programs operated by individual jurisdictions.

Continue to Coordinate and Partner with Other Regional Transit Services

With growth in both western El Dorado County and eastern Sacramento County, the coming years will see an increasing need for transit service over the El Dorado / Sacramento county

line. El Dorado Transit and EDCTC should continue to be active partners with other transit services in matters of regional fares, financing, and service planning.

Keep Pace With Changes in Technologies and Social Media

Like much of modern society, the public transit industry is seeing substantial changes associated with communications technologies and services. In particular, mobile communications and real-time information options are proving to both ease the inconvenience of accessing public transit while also making transit travel more enjoyable and productive.

LONG RANGE FINANCIAL PLAN

Future Impacts of Expansion in Sacramento Urbanized Area

Federal Transit Administration funding programs differ between those available in urbanized areas (as defined by the US Census) and in rural, non-urbanized areas. At present, the Sacramento Urbanized Area extends into western El Dorado County along the US 50 corridor as far east as western Diamond Springs. As has happened after decennial censuses in 2000 and 2010, this boundary can be expected to expand eastward after censuses in 2010 and 2020. This in turn reduces El Dorado Transit's potential funding through the rural transit programs (which are more flexible) and increases potential funding through the urban programs (which are less flexible). While this has an impact on overall long-term financial strategies, the relatively slow rate of population growth (compared to the previous 20-year period) infers that will be less of an issue going forward. Regardless, it is important for El Dorado Transit to actively participate in regional efforts to provide equitable and flexible federal transit funding. In addition, both El Dorado Transit and EDCTC will actively participate in regional decision-making regarding allocation of 5307 funding, to ensure that the smaller transit organizations receive an equitable share of this key Federal funding source.

Long Range Fare Changes to Address Inflation

Over the long term, even the relatively modest current rates of inflation can substantially reduce the value of current transit fares. State regulations require that El Dorado Transit passenger fares cover 11.5 percent of the program's operating cost. To address this requirement as well as to provide an important source of funding, fare increases keeping pace with inflation will be necessary within the long-range planning period.

Long Range Transit Funding Sources

The long-range financial plan incorporates the following funding sources:

- Passenger revenues and contract revenues.
- Transportation Development Act funds (both Local Transportation Funds and State Transportation Assistance), for both operating and capital purposes.
- New transit funding sources, such as proposition funding, as they become available for transit operating and/or capital purposes.

- Federal Transit Administration Section 5307 and 5337 funds for preventive maintenance and capital purposes for programs serving the urbanized area.

- Federal Transit Administration Section 5339 funds for major capital purposes, such as transit facilities and vehicle purchases.

- Federal Transit Administration Section 5310 funds for purchase of vehicles serving the elderly and disabled.

- Federal Transit Administration Section 5311 funds for operating and capital purposes for programs serving rural areas.

- El Dorado County Air Pollution Control District funds for operating and capital programs that benefit regional air quality.

- Potential joint funding with other jurisdictions for programs serving more than one jurisdiction, such as City of Folsom participation in the Folsom LRT route.

- Congestion Management Air Quality and Regional Surface Transportation Program for Park-and-Ride improvements.

- Traffic Impact Mitigation Fee program funds for purchase of commuter buses and for Park-and-Ride improvements.

No new local transit funding source (such as local-option sales tax) is forecast to be necessary to achieve this long-range plan.

GLOSSARY OF TERMS

TERM	DEFINITION
Arterial	Main route: a main route in a road, rail, or river system.
Base Fare	The price charged to one adult for one transit ride; excludes transfer charges, zone charges, express service charges, peak period surcharges and reduced fares.
Bus Rapid Transit	A bus-based mass transit system.
Commuter Service	A fixed route bus service, characterized by service predominantly in one direction during peak periods, limited stops, use of multi-ride tickets, and routes of extended length, usually between the central business district and outlying suburbs.
Cost Allocation	A method to determine the cost of services provided to users of that service.
Deadhead	The movement of a transit vehicle without passengers aboard.
Dial-A-Ride (DAR)	A form of on-demand transportation similar to public transit usually in areas or during times where fixed route service is not available or possible and resembling paratransit, taxi, or shuttle service in its execution.
Dispatcher	Communications personnel responsible for receiving and transmitting pure and reliable messages, tracking vehicles and equipment, and recording other important information.
Fare	The amount charged for travel.
Farebox Recovery Ratio	Measure of the proportion of operating expenses covered by passenger fares; found by dividing fare box revenue by total operating expenses for each mode and/or systemwide.
Farebox Revenue	Value of cash, tickets, tokens and pass receipts given by passengers as payment for rides; excludes charter revenue.
Fixed Route	Service provided on a repetitive, fixed-schedule basis along a specific route with vehicles stopping to pick up and deliver passengers to specific locations; each fixed-route trip serves the same origins and destinations, unlike demand response and taxicabs.
Intelligent Transportation System	Advanced applications which, without embodying intelligence as such, aim to provide innovative services relating to different modes of transport and traffic management and enable various users to be better informed and make safer, more coordinated, and 'smarter' use of transport networks.

TERM	DEFINITION
Layover Time	Time built into a schedule between arrival at the end of a route and the departure for the return trip, used for the recovery of delays and preparation for the return trip.
Light Rail	An urban form of public transport using the same rolling stock as a tramway, but operate primarily along exclusive rights of way and have vehicles capable of operating as a single train or as multiple units coupled together.
Limited Service	Higher speed arterial service that serves only selected stops. As opposed to express service; there is not usually a significant stretch of non-stop operation.
Marginal Costs	Additional cost of producing extra items.
Off-Peak Period	Non-rush periods of the day when travel activity is generally lower and less transit service is scheduled. Also called “base period.”
Operating Assistance	Financial assistance for transit operating expenses (not capital costs); such aid may originate with federal, local or state governments.
Operating Expense	Monies paid in salaries, wages, materials, supplies and equipment in order to maintain equipment and buildings, operate vehicles, rent equipment and facilities and settle claims.
Paratransit	An alternative mode of flexible passenger transportation that does not follow fixed routes or schedules.
Park-and-Ride	Traffic reduction plan: a transportation plan, designed to reduce car use in city centers, in which motorists drive to out-of-town parking lots from which buses or trains run regularly into the city.
Passenger Miles	The total number of miles traveled by passengers on transit vehicles.
Peak Period	Morning and afternoon time periods when transit riding is heaviest.
Revenue Hour	The measure of scheduled hours of service available to passengers for transport on the routes. Excludes deadhead hours but includes recovery/layover time. Calculated for each route.
Reverse Commute	Commute from the city to the suburbs.
Ridership	The number of rides taken by people using a public transportation system in a given time period.
Route	An established series of streets and turns connecting two terminus locations.
Running Time	The time assigned for the movement of a revenue vehicle over a route, usually done on a route segment

TERM	DEFINITION
	basis by various time of day.
Rural	A geographic area that is located outside cities and towns.
Subsidy	A form of financial or in kind support extended to an economic sector.
Transit Corridor	A generally linear tract of land that contains lines of transportation like highways, railroads, or canals.
Transit Forecasting	The process of estimating the number of vehicles or people that will use a specific transportation facility in the future.
Transportation Systems	The equipment and logistics of transporting passengers and goods.
Travel Time	The time allowed for an operator to travel between the garage and a remote relief point.
Trip (One-Way Trip)	The one-way operation of a revenue vehicle between two terminus points on a route. Trips are generally noted as inbound, outbound, eastbound, westbound, etc. to identify directionality when being discussed or printed.

ACRONYM	DESCRIPTION
ADA	Americans with Disabilities Act
APTS	Advanced Public Transportation Systems
AVL	Automatic Vehicle Location
BRT	Bus Rapid Transit
CAD	Computer Aided Dispatch
CMAQ	Congestion Mitigation and Air Quality
CNG	Compressed Natural Gas
CSMP	Corridor System Management Plan
CSUS	California State University Sacramento
CTSA	Consolidated Transportation Services Agency
EDCTA	El Dorado County Transit Authority
EDCTC	El Dorado County Transportation Commission
EIR	Environmental Impact Report
FAR	Floor-to-Area Ratio
FTA	Federal Transit Administration
FTE	Full-Time Equivalent
FY	Fiscal Year
HBW	Home-Based Work
HOV	High Occupancy Vehicle
IPC	Iron Point Connector

ACRONYM	DESCRIPTION
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
LRT	Light Rail Transit
LTF	Local Transportation Funds
MDTs	Mobile Data Terminals
M.O.R.E	Mother Lode Rehabilitation Enterprises, Inc.
NEMT	Non-Emergency Medical Transportation
PAVES	Placerville Advocacy, Vocational, and Educational Services
RADs	Regional Analysis Districts
RT	Sacramento Regional Transportation District
SAC	Stakeholders Advisory Committee
SACOG	Sacramento Area Council of Governments
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SDC	Senior Day Care
SRTP	Short-Range Transit Plan
SSTAC	Social Services Transit Advisory Committee
STA	State Transit Assistance
TCRP	Transit Cooperative Research Program
TDA	Transportation Development Act
TMA	Transportation Management Association
TRB	Transportation Research Board
UCP	United Cerebral Palsy

Appendix A
Online Transit Survey

SURVEY PURPOSE

An online survey was conducted to solicit input regarding transit needs and usage throughout the County and beyond. The survey was posted on Surveymonkey.com with links on the LSC website and the El Dorado County Transportation Commission website. Additionally, members of the Stakeholders Advisory Committee were asked to encourage their constituents to complete the survey, either online or in hard-copy format. Flyers announcing the survey were posted on buses and at major stops. A total of 16 were received and 234 online surveys were completed, for a total of 250 valid survey responses.

SURVEY RESULTS

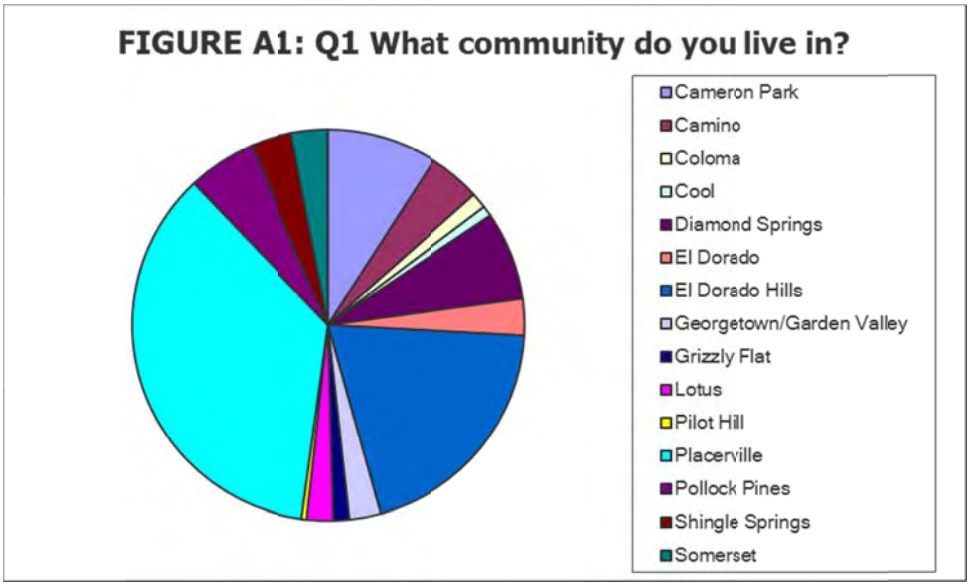
Surveys were initiated on November 11, 2013, and closed on January 10, 2014. There were a total of 12 questions on the survey. Results are summarized below.

Question 1: What community do you live in?

A total of 248 individuals answered this question, with 16 of them providing open-ended answers. Results are shown in Table A1 and Figure A1. As indicated, 83 (35.8 percent) said they live in Placerville, followed by 46 (19.8 percent) who live in El Dorado Hills and 21 (19.1 percent) who live in Cameron Park.

TABLE A1: Q1: What Community Do You Live In?

Locations	Response Percent	Response Count
Cameron Park	8.5%	21
Camino	4.0%	10
Coloma	1.2%	3
Cool	0.8%	2
Diamond Springs	6.9%	17
El Dorado	2.8%	7
El Dorado Hills	18.5%	46
Georgetown/Garden Valley	2.4%	6
Grizzly Flat	1.2%	3
Lotus	2.0%	5
Pilot Hill	0.4%	1
Placerville	33.5%	83
Pollock Pines	5.2%	13
Shingle Springs	3.2%	8
Somerset	2.8%	7
Other	6.5%	16
Total Responses		**248**



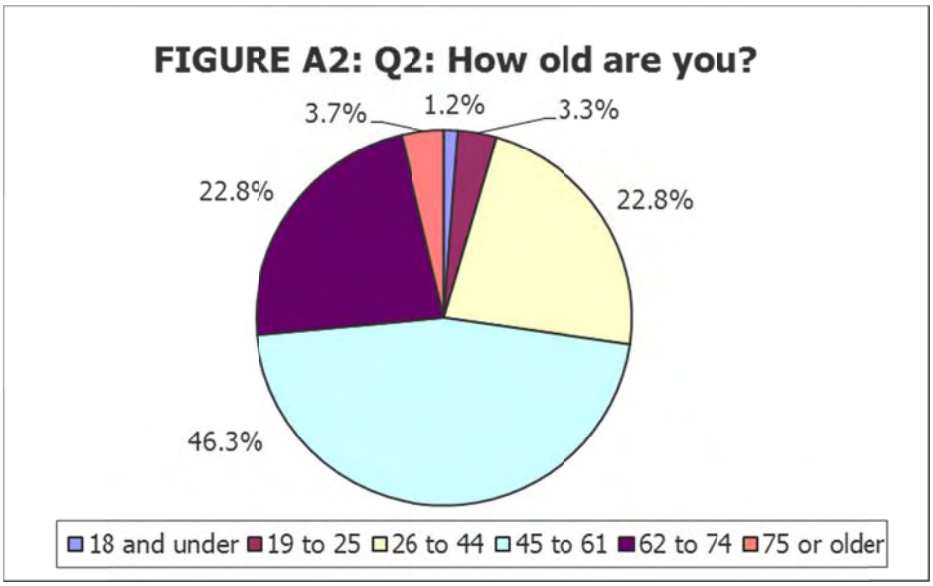
Out of the 16 individuals who gave open-ended answers, three of them stated they live in Fair Play, two each in Meyers and Mosquito, and nine other communities were listed individually. These locations are displayed in Table A2.

TABLE A2: Q1: Other Responses: What Community Do You Live In?

Locations	Responses
College area	1
Coloma	1
Fair Play	3
Folsom	1
Garden Valley	1
Kelsey	1
Meyers	2
Mosquito	2
Mount Aukum, Ca	1
Oak Hill	1
Orangevale	1
Rescue	1
Total Other Responses	**16**

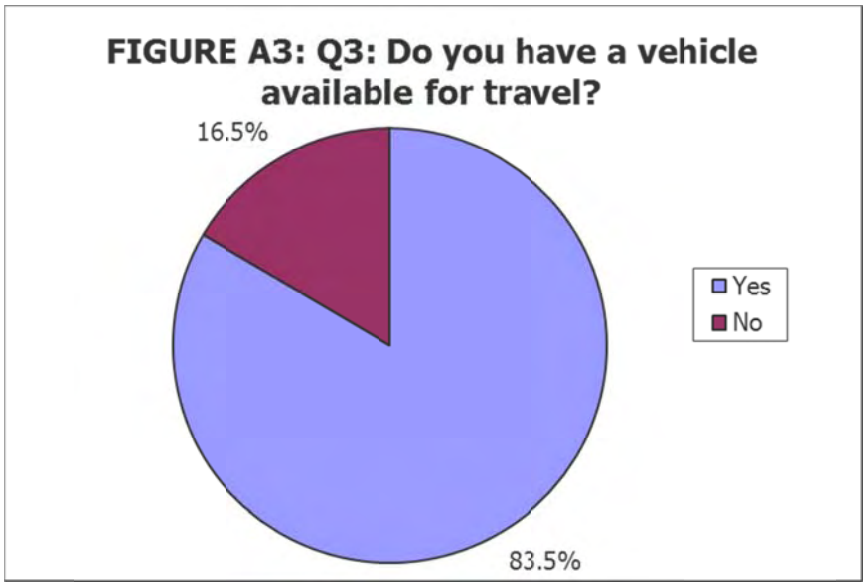
Question 2: How old are you?

Several age categories were provided as answers. Of 246 individuals who answered this question, the majority of individuals (46.3 percent) selected the age category 45 to 61. Additionally, 22.8 percent responded they were aged 26 to 44, and 22.8 percent responded they were seniors aged 62 to 74. The results are displayed in Figure A2.



Question 3: Do you have a vehicle available for travel?

A total of 242 individuals answered this question, with results displayed in Figure A3. The majority (83.5 percent) replied that they have a vehicle available for travel.



Question 4: What Community Do You Typically Travel To For (Various Activities)?

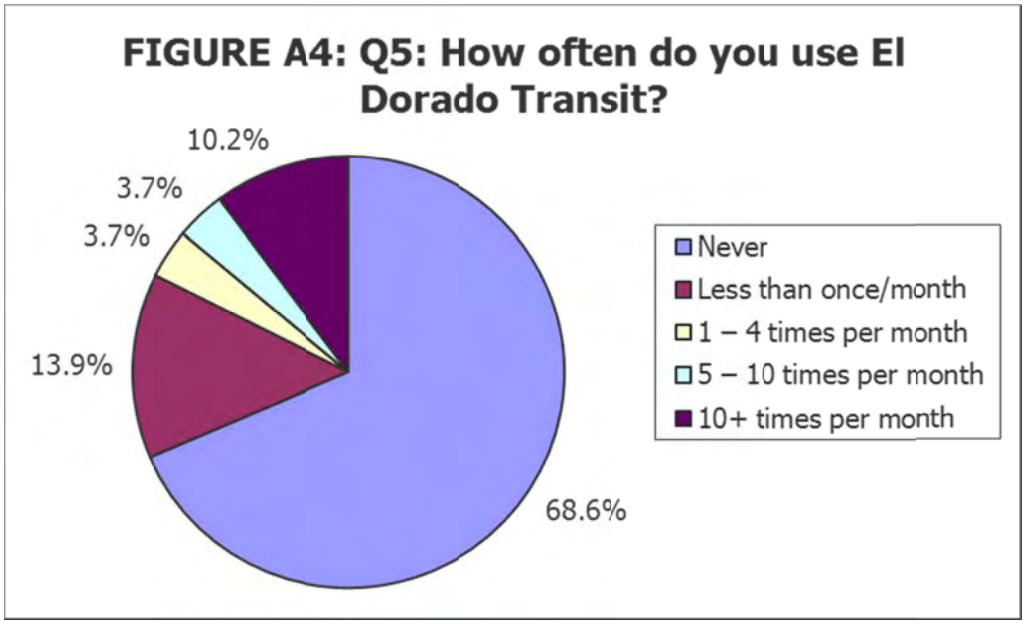
There were six activities listed in this question with an open-ended option to list travel locations for each activity. The majority of individuals chose Social/Recreation and Doctor/Medical as activities for which they travel. Under these two activities, Folsom and Placerville were the primary locations listed. The most popular communities repeated under every activity were also Placerville and Folsom, with the addition of El Dorado Hills also being a popular location. The numbers are displayed in Table A3.

TABLE A3: Q4: What Community Do You Typically Travel To For...?

Work		Doc/Med		School		Soc/Rec		Grocery		Banking	
Location	**#**	**Location**	**#**	**Location**	**#**	**Location**	**#**	**Location**	**#**	**Location**	**#**
Auburn	1	Auburn	1	Cameron Park	2	Alpine County	1	Auburn	1	Cameron Park	21
Bay area	1	Cameron Park	31	Camino	1	Auburn	6	Broadway	1	Cool	3
Cameron Park	9	Cameron Park to Placerville	1	Carmichael	1	Cameron Park	17	Cameron Park	34	Diamond Springs	4
Cameron Park to Placerville	1	Carmichael	1	Citrus Heights	1	Camino	6	Citrus Heights	1	El Dorado Hills	40
Camino	2	Diamond Springs	4	Cool	1	Chilli Bar	1	Cool	5	Folsom	8
Citrus Heights	1	El Dorado	1	Diamond Springs	3	Coloma	4	El Dorado Hills	44	Georgetown	6
Coloma	2	El Dorado Hills	15	El Dorado	2	Cool	1	Fairfield	1	Online	7
Diamond Springs	7	Folsom	100	El Dorado Hills	17	Diamond springs	4	Folsom	39	Placerville	138
El Dorado Hills	15	Granite Bay	1	Folsom	9	Echo Lake	1	Georgetown	5	Pollock Pines	2
El Dorado Hills - Folsom	1	Oakland	1	Indian Creek	1	EDH to Sacramento	1	Jackson	1	Sacramento	2
Elverta	1	Palo Alto	1	Lake Forest	1	El Dorado	1	Lake forest	1	South Lake Tahoe	2
Fair Play	1	Placerville	74	Marina Middle school	1	El Dorado County	5	Meyers	1	**Sum**	**233**
Folsom	4	Rancho Cordova	1	Oak Ridge	1	El Dorado Hills	37	Placerville	135		
Home/Amador/Camino/Placervill	1	Roseville	10	Brooks	1	El Dorado HIlls to Tahoe	1	Placerville to Folsom	1		
Home-based business	1	Sacramento	18	Placerville	17	Elk Grove	1	Pleasant Valley	2		
Lotus	1	San Francisco	1	Pollock Springs	1	Fair Oaks	1	Pollock Pines	12		
Placerville	117	Shingle Springs	3	Rancho Cordova	1	Fair Play	1	Sacramento	1		
Pleasant Valley	1	South Lake Tahoe	2	Sacramento	4	Folsom	51	Shingle Springs	1		
Pollock Springs	1	**Sum**	**266**	Shingle Springs	3	Fremont	1	South Lake Tahoe	1		
Rancho Cordova	5			South Lake Tahoe	1	Georgetown	2	**Sum**	**287**		
Roseville	4			**Sum**	**69**	Granite Bay	1				
Sacramento	18					Grizzly Flat	1				
Shingle springs	3					Hwy 50, 88	1				
South Lake Tahoe	3					Ice House lakes	1				
South Natomas	1					Ione	1				
Sunnyvale	1					Lincoln	1				
Woodland	1					National Forest	1				
Sum	**204**					Nevada	1				
						Orangevale	1				
						Placer County	1				
						Placerville	84				
						Placerville to El Dorado Hills	1				
						Placerville to Folsom	1				
						Pleasant Valley	1				
						Pollock Pines	8				
						Rescue	1				
						Rocklin	3				
						Roseville	6				
						Sacramento	25				
						Sacramento area	2				
						San Francisco	1				
						Shingle Springs	2				
						Skunk Hollow	1				
						Somerset	1				
						Sonoma County	1				
						South Lake Tahoe	4				
						Strawberry	1				
						Tahoe	7				
						Western EDC	1				
						Sum	**304**				

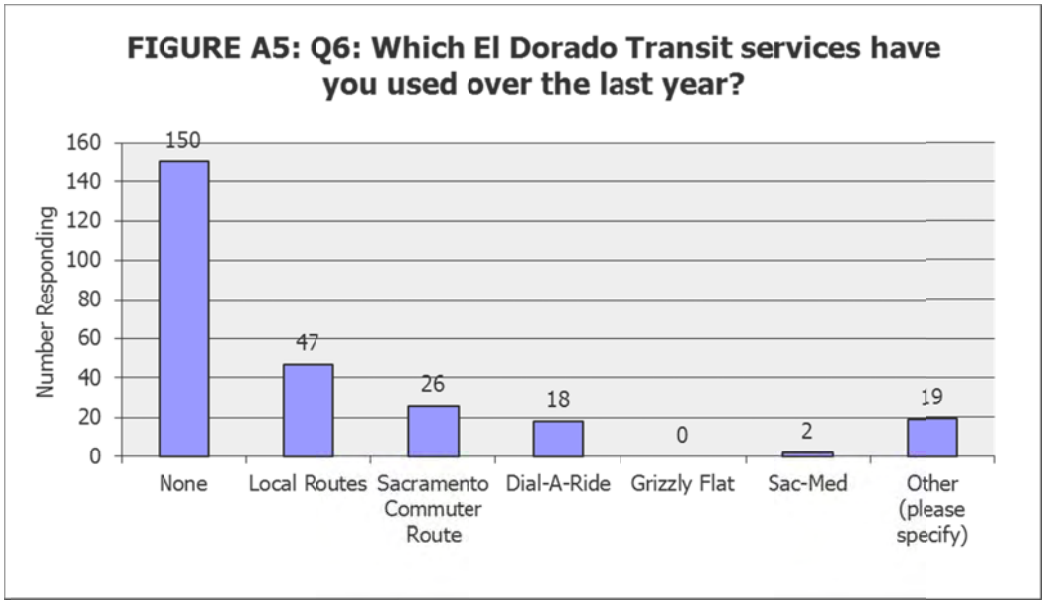
Question 5: How often do you use El Dorado Transit (check one)?

A total of 245 individuals answered this question, and the majority (68.6 percent) replied they never use El Dorado Transit, as shown in Figure A4.



Question 6: Which El Dorado Transit services have you used over the last year?

A total of 262 individuals answered this question, with results displayed in Figure A5. Of the 262 respondents, 150 individuals claimed they have not used any El Dorado Transit services over the last year. Those who did use El Dorado Transit services used the local routes most commonly, followed by the commuter service, "other" services, and Dial-a-Ride. When listing "other" services, most often noted was the special event services (5 responses), "Colored bus routes" (most likely referring to more services) as well as Amtrak, Charter, Iron Point, Meyers, and the River Shuttle (Skunk Hollow to Coloma).



Question 7: What Factors Limit Your Use of El Dorado Transit Service?

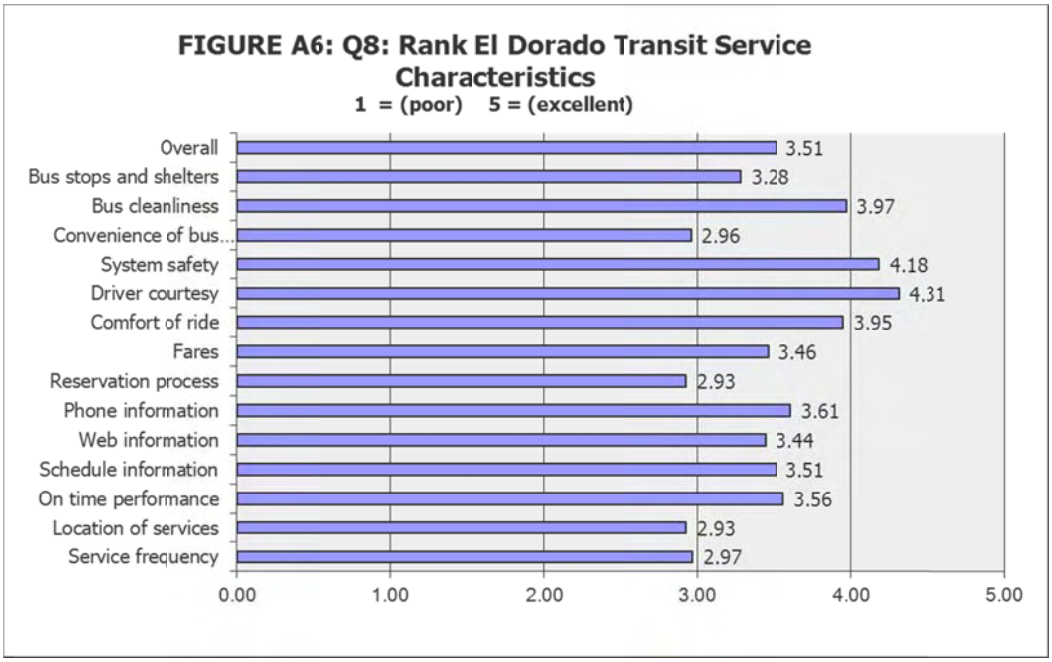
This question listed ten factors with the instruction to choose as many as apply and an option to select other. The factors and response counts are listed in Table A4. Most frequently cited was that the survey respondent had a vehicle (19.9 percent) or that the bus does not go near their home (16.9 percent) or does not go where they need to go (12.3 percent).

TABLE A4: Q7: What Factors Limit Your Use of El Dorado Transit Service?

Answer Options	Response Percent	Response Count
The bus does not stop near my home	16.9%	104
The bus doesn't go where I need to go	12.3%	76
The bus doesn't run often enough	10.4%	64
The bus does not run late enough	8.8%	54
The bus does not start early enough	4.2%	26
The bus takes too long	6.6%	41
The fare is too high	1.6%	10
I'm not aware of the bus service	4.7%	29
I have a vehicle	19.9%	123
I make multiple stops along the way	9.6%	59
Other	5.0%	31
Total Responses		**617**

Question 8: Rank El Dorado Transit Service Characteristics

Respondents were asked to rank their opinion of service characteristics on El Dorado Transit on a scale of 1 to 5, with 1 being poor and 5 being excellent. As shown in Figure A6, the average overall rating was 3.51. The highest ranked factor was driver courtesy (4.31), followed by system safety (4.18). The lowest ranking factors were reservation process and location of services, each receiving a ranking of 2.93.



Question 9: Do you have public transit needs outside of El Dorado County? For what purpose?

This question listed five locations with an open-ended option to list the purpose for location as well as an option to select other. Figure A7 displays the number of responses for each location selected. Table A5 displays the purpose listed under each location. The primary locations selected were Sacramento and Folsom.

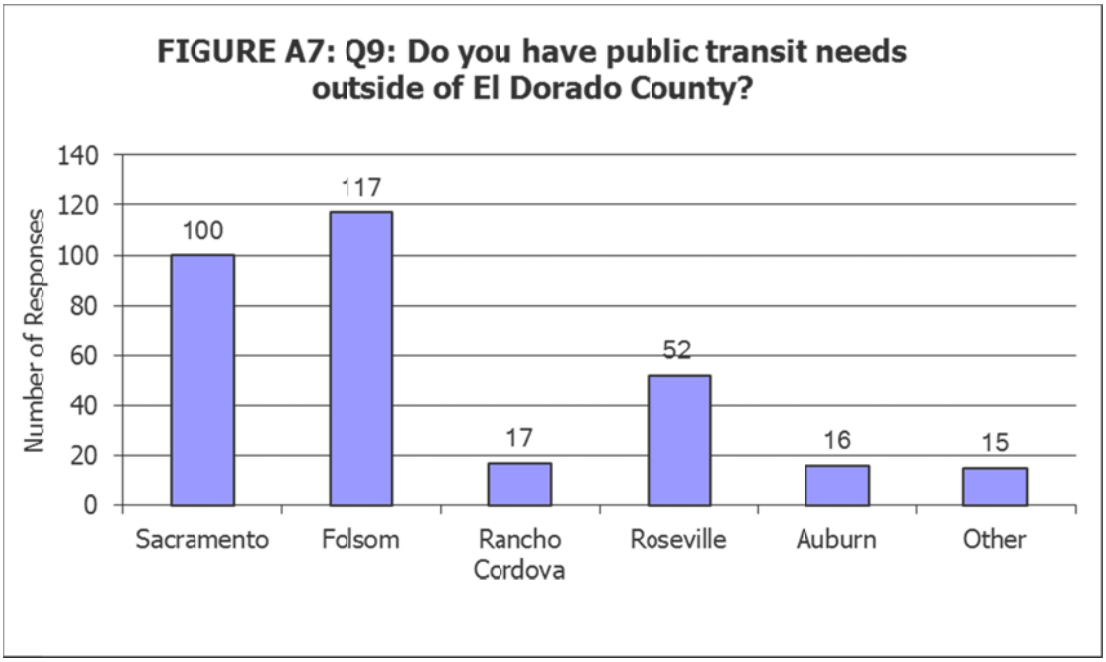
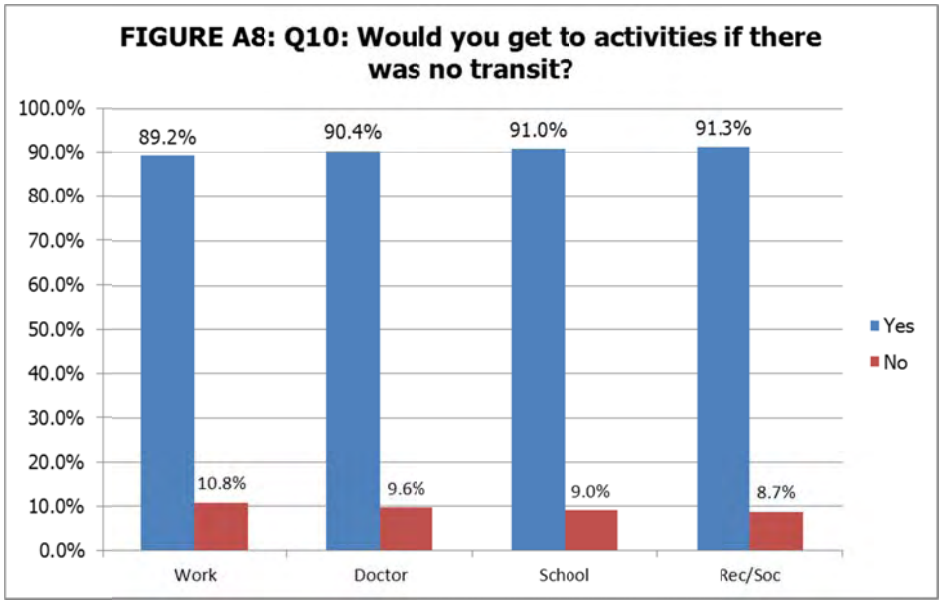


TABLE A5: Q9: Do you have public transit needs outside of El Dorado County? For what purpose?

Sacramento		Folsom		Rancho Cordova		Roseville		Auburn		Other
Purpose	#	Purpose	#	Purpose	#	Purpose	#	Purpose	#	Purpose
Airport	9	Amtrak	2	Business Meetings	1	BART to San Francisco	1	Amtrak	1	College (anywhere)
Amtrak	3			Job Interviews	1	Business Meetings	1	Entertainment	2	Work (anywhere)
Avoid parking	1	business	1	Light Rail	1	church	1	Legal Aide	1	Bay Area
Business	6	Church	1	Medical	5	Entertainment	4	Medical	2	Social (Carmichael)
College	3	Dance class	1	Personal	1	Medical	11	Shopping	6	Day Trip (Sacramento)
Dentist	1	Entertainment	10	Recreational	1	School	23	Social	2	Shopping (El Dorado Hills)
Entertainment	14	Grocery	2	School	1	Social	8	Work	2	Connections (Four Seasons)
Government Services	1	Home	2	Shopping	2	Work	3		16	Georgetown, Cool, Garden Valley
Greyhound	2	Leisure	1	Social	2		52			Medical (Oakland Children's Hospital)
Medical	16	light rail	1	Work	2					Kids
Recreation	5	Medical	41		17					Recreation
School	3	Recreation	4							Medical (SF, Oakland, Palo Alto)
Shopping	8	School	3							Social/work/shopping/entertainment
Social	7	Shopping	44							Recreation/Entertainment (Tahoe, Reno)
State Library	1	Social	3							Social (Turlock)
Work	20	Work	3							
	100		117							

Question 10: Would you get to activities if there was no transit?

Individuals were asked if they could get to work, the doctor, school/college or social/recreational activities if transit were not available. The majority replied yes, with 8.7 to 10.8 percent responding no, as shown in Figure A8.



Question 11: Do you think public transit should be provided in El Dorado County? Explain

This question asked individuals' opinion of whether public transit should be provided in El Dorado with an open-ended option to explain. As shown in Figure A9, the majority support providing services. Tables A6, A7 and A8 list reasons for supporting, or not supporting, services. Those who were uncertain or said "no" most commonly cited cost or the rural nature of the County as reasons. Those who responded "yes" most often noted the need in general, and also the need specifically for low income, elderly, youth or individuals with disabilities.

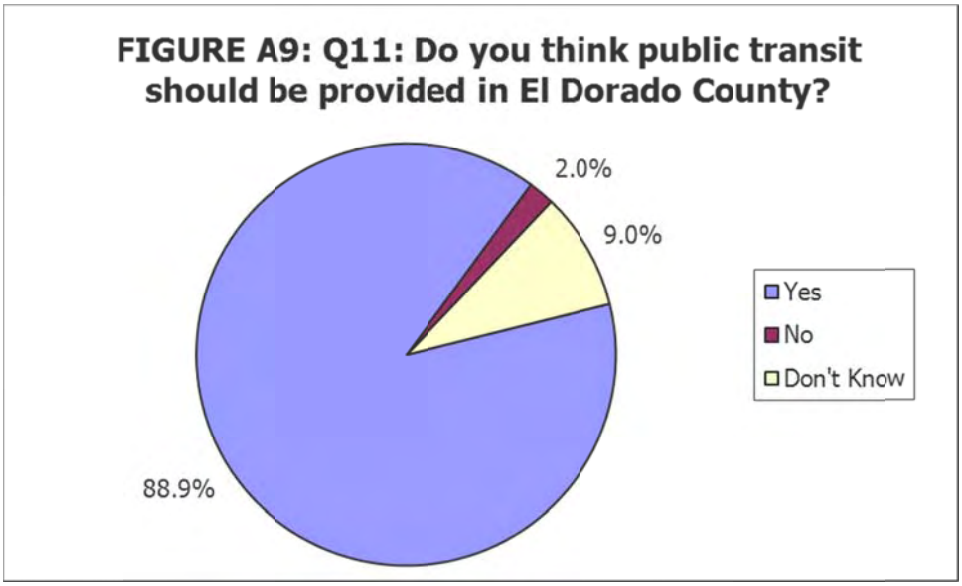


TABLE A6: Q11: Do you think public transit should be provided in El Dorado County? *(Answered "Don't Know" or "No")*

Response	Explanation	#
Don't Know	Can we afford it?	1
Don't Know	Community is so spread out, may be financially unfeasible.	1
Don't Know	I use a bicycle that can not be accomodated by the bus racks, useless	1
Don't Know	It may to expensive	1
Don't Know	It seems that youth could get to work, shopping and library more easily.	1
Don't Know	may not be in a rural area like this	1
Don't Know	No explanation	16
Total		*22*
No	I think the county is so rural that creating a county-wide transit system would be very difficult. Possibly serving So. Lake Tahoe, or Placerville/Shingle Springs/Cameron Park, etc. might work, but trying to include the Georgetown Divide would be difficult.	1
No	Doesn't seem viable. Too rural. Too big of a county.	1
No	highly subsidized ticket to nowhere	1
No	Too costly	1
No	No explanation	1
Total		*5*

TABLE A7: Q11: Do you think public transit should be provided in El Dorado County?

Summary of "Yes" Responses

	Responses	
Paraphrased Responses	**#**	**%**
Serve all communities	3	1.4%
Reduce traffic	10	4.6%
Reduce pollution	12	5.5%
Reduce Stress	1	0.5%
Seniors need it	18	8.3%
Disabled need it	4	1.8%
Youth need it	6	2.8%
Low income/carless need it	22	10.1%
Provide mobility/needed	57	26.3%
Safe alternative for pedestrians	1	0.5%
If efficiently provided	8	3.7%
Including So Lake Tahoe	1	0.5%
Citizens pay taxes	1	0.5%
Good for commuting	5	2.3%
Convenient	2	0.9%
Good for the environment	7	3.2%
For medical needs	2	0.9%
Affordable transportation option for people	7	3.2%
Expand	4	1.8%
For shopping	1	0.5%
To attract businesses	1	0.5%
No Explanation	44	20.3%
Total	**217**	100.0%

TABLE A8: Q11: Do you think public transit should be provided in El Dorado County? (Page 1 of 5)

Detailed "Yes" Responses

Explanation for "Yes" Response
All communities should have access to public transport
As a commuter, it offers an alternative that supports reduction of traffic, pollution, and stress
At my tender age, it is only a matter of time when I will have to depend less on my POV
Because County office's are spread all over such a rural area.
Because it helps me get the program that i go to and back to where my mom works and helps me get to my friends houses too.
Bus is needed to get people safely up and down Cameron Park Dr, rather than walking on dangerous road. Bus should run on Cameron Park Dr around 6:00 pm when it is dark and there are always pedestrians on that street. Bus also helps people get to Placerville library.
But it needs to reach critical mass to make it feasible. If a significant number of people don't use it, it is too costly to operate.
But NOT to the extent of functioning like the inner city. Be selective.
But think so Lake Tahoe should be included
Citizens pay taxes to pay for services. Transit is part of those services.
Community sustainability, greenhouse gas reduction
critical for those without their own transportation options and benificial for communiting
Cuts down on emissions/cost for users
EDC has a large and growing elderly population that needs it; it reduces air pollution from recreational visitors
efficiency, convenience, environmenrally sound.
Either do it in such a way as to add more routes, more stop-times, more streets, (more and smaller busses?), more destinations that really serve the needs of people who have to use the bus, or could use it much more if it really worked well - OR - eliminiate "public transit" altogether!
El Dorado County is very widespread. It's about time that a route is developed that would make it more convenient for riders. Just having a stop at Town Center is not enough. Bus routes should be available at most mamor intersections in Western El Dorado County.
Essential public service
Even though I do not use it, please do everything you can to expand transit. The need is urgent for both the young and the old.
Everyone can't drive, better for air quality, low cost.
For all those people who lack transportation
For people that do not have vehicles.
For people without a car
For people without a car, kids whose parents work
for the kids to take if parents can't give them a ride
For the smart people that are culturally happy with using a transit system, as well as those that have not other transportation, it is a very important service. So many of us are just geared toward getting in the car and going, it is difficult to think to utilize alternatatives.
For those that have no transportation.
For those who cannot drive, or lack a car.
For those you do not have reliable transportation
for too old to drive, can't get license or afford a car
Great for commuters and those who don't have a car. Should be as efficient as possible. Should be augmented with low cost taxi-type service for efficiency.

Table A8: (Page 2 of 5)

Explanation for "Yes" Response
Have options to driving, vehicle in shop, going someplace where parking will be an issue
helps cut down on the commuter traffic to Sacramento
Helps get to the places I need to go if old vehicle not running.
However, with better management.
I am a social worker at Marshall Medical Center in Placerville. Although the survey indicates I personally do not need public transporation currently, I do work with many patients that depend on it.
I am sure there are people who do not have a car and rely on transit. However, I am sure it it difficult to provide good comprehensive service in such a large, rural county.
I am unable to drive and must get to my doctor appointments on a regular basis.
I believe in alternative transit modes.
I believe it serves a need however, I'd be curious to know and understand the demographics and the population size of those who benefit from ED Transit.
I can't get around without it
I don't need right now, but will in the future
I know many people depend on it. Especially ones in Pollock Pines needing to travel to Placerville.
I know people who depend on it and I would not like to see them lose their transportation.
I may need it later and it helps low income and elderly people
I think a lot of people here need it.
I work with clients that depend on this undependable in inefficient system. Very frustrating - even though it is a rural county, there really isn't any way to get around if you do not have a vehicle.
I work with clients who really need it!
I would like to reduce the use of private cars
I would use public transit more if it came into Garden Valley, useful if the car breaks down, if I can't drive for medical reasons, etc.
If I couldn't take the commuter bus, my family would need to buy another car. This would cause us financial hardship (cost of car + insurance + gas + traffic stress)
If the bus fit my schedule, I would ride more often.
Incorporated communities have public transportation
It can be helpful but just needs to be more accessible
It helps air quality!
It is a needed in this community for elderly and people who cannot drive
It Is Already A Service Provided In El Dorado County
It is an essential transportation I keep in mind as I become older and unable to drive
It is an important sevice for many who do not drive
It is critical for those without a vehicle.
It is desparately needed for someone like me who doesn't have a car when my husband in working far away. And my daughter who doesn't have a car and would like to visit or live with us and she gets to Folsom and can't get here.
It is important for people without cars to be able to get around the community. Also highway 50 is impacted during commute hours.
It is necessary for people who don't own vehicles or cannot drive (elderly).
It is needed by these who no longer drive
It is nice to carpool to and from work.
It is valuable for those who do not drive and it is environmentally helpful

Table A8: (Page 3 of 5)

Explanation for "Yes" Response
It makes getting to and from places easier!
It seves a need for those who do not require travel beyond just a short distance
It should be a core service available in every community
It would be nice if light rail went from Pville all the way down to Folsom.
It would reduce congestion and put less strain of evironmental resources.
It's a more efficient way of moving people
It's good because everything is so spread out and hard to walk to.
It's great for those that need the service
Just because I don't need it, doesn't mean others don't. Providing this service in our county is necessary in improving our community.
less traffic
Less traffic congestion
Mainly for those without dependable transportation or commuting during high traffic hours; not really needed for local use
Many do not have reliable transportation and rely on public transit
Many families do not have reliable cars
Many people do not drive or have vehicles. This limits their employment potential & can limit their medical, health, & social opportunities.
Many people do not have reliable/affordable transportation. The geography of the county poses many challenges regarding public transit.
many people don't have transportation without it.
Many people NEED it to get around. Everyone else needs to use it because of less pollution, greater fuel efficiency, etc. than so much private-car driving! And it's less expensive than keeping & using a car!
Many poor and homeless have no options to getting around other than walking
Many Seniors (especially homebound) have no other transportation
Mass transit needs to be promoted
Meyers needs to be connected to the public transportation system! Everyone that lives in Meyers works for and is a part of South Lake Tahoe!
Mobility for those who can't drive, cost efficiency, helps clean the air and use resources more wisely
More options for kids who don't drive
More routes and later running hours
More transit is needed west of Placerville, esp. El Dorado Hills
my husband would take it to and from school but the pick up/drop off dont work with his school hrs
Need more for seniors, those that are disabled
Needed near my house
No all have the wherewithal to travel in own vehicle. Public tranportation plays a role in dealing with traffic challenges
not everyone can drive everywhere
Not everyone can or should drive.
not everyone drives Mom used public transit for 30 years
not everyone has a car
Older people are going to lose their driving privileges soon.

Table A8: (Page 4 of 5)

Explanation for "Yes" Response
Our program could not operate without El Dorado Transit
Our students and elders need transportation in town. Many teens are not getting driver's licenses until they are 20 or 21.
Owning and operating a vehicle is becoming too expensive and prohibitive. We need an alternative that is less expensive and will reduce traffic and is more ecologically responisble.
People need low cost public mass transit, its a bridge out of poverty
People who are unable to afford a vehicle can't work without transportation. Elderly who no longer can drive need a transportation alternative.
Public transit fills a great need in our community; not everyone can afford (or desires) to drive a personal vehicle to all locations/services.
Public transit is critical to our community
Public transit should be available EVERYWHERE possible!
Public transportation is very important for people who don't have a vehicle. .
Reduce car trips and traffic
Reduces traffic ,& pollution
Should be available for commuting to work and limited otherwise to dial-a-ride during non-rush hours
so I can get to work adn Doctor's appt
so i won't be stranded
Some people cannot afford cars - like my daughter
Sometimes people need to get from point a to point b without a vehicle
The County is too rural for most peoplpe to be able to walk everywhere they need to go.
The disabled need it, the elderly need it and commuters need it.
The growing number of seniors in the county really requires a better transit system.
There are enough people living here we need it
There are many families that have no private transportation and are very limited to access to doctor visits and shopping.
There are many people who are not as fortunate to both have a car and are mentally/physically able to drive. I want to have public transit available to me when I am no longer able to drive. Without such means to get around, people are more susceptible to depression and other illnesses.
There are some people who rely on it
There is always a poplulation that needs transportation, and if El Dorado County plans to attact businesses to the 50 corridor and participate as part of the Sac Metro region, connections in and out of El Dorado County would help facilitate that
they are good
Too many cars on the road
Vital for those without transportation or not able to drive due to income restrictions, age, disabilities etc. I currently have a vehicle but if I didn't I would rely on transit and as I age will be relying on it more. With so many in this area using Kaiser Health it would be appropriate to have a line running down there. I don't mind waiting and it would give a vital alternative if unable to drive.
vital service in the community

Table A8: (Page 5 of 5)

Explanation for "Yes" Response
Want to have clean air and a safe ride to work also $ saved in transport will be spent elsewhere in el dorado county
We ar etoo spread out, and this is a tight knight community. Pulic transporation is an asset for getting around, and air pollution control
we completed a survey last year about this and the survey was for public transportation
We need it
We need much more public transit.
We need to work to increase our commuter system now before not having one becomes a problem
Where the county is growing, it would be a great way to reduce traffic. So many trips are just done the road. It would be great to have easy transportation to social events in Placerville and Apple Hill.
While I don't use Public transit at this point the day may come when I need to. Also, there are many low income folks who need and would use public transit if it were more flexible. Another point: I would use public transit to go to Sacramento on the weekends if it were available.
with NO noxious emissions please
Yes, but bus/van service only. Other types of public transit are not economically feasible
Yes, but it is very difficult to service the out-lying rural regions. I understand why it is not near my house, but it would be nice to have a stop close by as my son does not drive.
Yes, if affordable public transit, and safe and user-friendly bike routes were available from where I live on Pleasant Valley Road & Oak Hill, I would either take the bus or ride my bike into town. Actually, I'd love to be able to bike to Placerville, but Pleasant Valley Road traffic is too heavy, too fast and too unsafe to make bike riding along it feasible.
Yes, many of the families I work with do not have their own car or reliable transportation to or from work/school/medical care.
Yes, some buses don't run early or late enough to be able to fully use EDT SVCS.

Question 12: How could El Dorado Transit better meet your transportation needs?

Survey respondents often provided multiple responses to this question, and the results were categorized as shown in Table A9. Approximately a third of the comments were to suggest that service should be expanded; either generally, or to specific locations; and another third of responses suggested expanded hours or increased service frequency. It is also notable that approximately 10 percent of respondents said they would like to have better information about services.

TABLE A9: Q12: How could El Dorado Transit better meet your transportation needs?

Category of Improvements	#	%	Category of Improvements	#	%	Category of Improvements	#	%
Amenities			*Expanded Service:*			*Fares*		
Better benches	1	0.6%	Overall	15	8.7%	Lower fares	2	1.2%
Clean buses	1	0.6%	Dial-a-Ride	4	2.3%	Reduce senior fares	1	0.6%
Bike connectivity	3	1.7%	ADA throughout the County	1	0.6%	Reduced transfer fares	1	0.6%
More bike racks	2	1.2%	Commuter to Rancho	1	0.6%	Day Passes	1	0.6%
Smaller vehicles	1	0.6%	In El Dorado Hills	8	4.6%	*Subtotal*	*5*	*2.9%*
Subtotal	*8*	*4.6%*	In Pollock Pines	1	0.6%			
			In Shingle Springs	1	0.6%	*Other Miscellaneous*		
Information / Customer Service			To more PNR Locations	1	0.6%	Express commuter service	2	1.2%
Better DAR reservations	4	2.3%	To Cool / Lotus / Georgetown	4	2.3%	High frequency local service	1	0.6%
Improved customer service	1	0.6%	To Folsom	3	1.7%	Increased/improved connections	3	1.7%
Improved Info	13	7.5%	To Garden Valley	1	0.6%	Increased EDH parking	1	0.6%
Public Education	1	0.6%	To Georgetown	1	0.6%	Increased frequency	12	6.9%
Subtotal	*19*	*11.0%*	To Kaiser (Folsom and Roseville)	1	0.6%	Increased frequency to Iron Point	1	0.6%
			To outlying/rural areas	2	1.2%	Light Rail in El Dorado County	1	0.6%
Don't use/doesn't work for me	*12*	*6.9%*	To Pleasant Valley	1	0.6%	Long distance medical trips	1	0.6%
			to Sly Park	1	0.6%	More accessible	2	1.2%
Expanded hours	2	1.2%	To South County	1	0.6%	Partner with employers	1	0.6%
Overall	2	1.2%	To Light Rail	2	1.2%	Routing (specific suggestions)	11	6.4%
Weekend hours	3	1.7%	From PNR to PNR	1	0.6%	Scheduling (specific suggestions)	6	3.5%
Earlier	2	1.2%	To Airport	1	0.6%	Serve youth	6	3.5%
Earlier weekend	1	0.6%	To Sac County PNRs on Hwy 50	1	0.6%	Shorter travel times	5	2.9%
Later commuter hours	3	1.7%	Expanded special event service	1	0.6%	Too rural to serve	1	0.6%
Later hours	8	4.6%	Holiday shuttle	1	0.6%	*Subtotal*	*54*	*31.2%*
Subtotal	*21*	*12.1%*	*Subtotal*	*54*	*31.2%*			
Total Responses to Question: *173*								

Appendix B
County Services Transportation Survey

A variety of El Dorado County human services agencies have recognized a need for transportation for their clients. These needs have changed recently due to a number of departments moving out from centrally located areas in Placerville to outlying areas in Diamond Springs and Shingle Springs order to find larger spaces with lower rents. In particular, the Mental Health Department and Probation Department have suggested that clients' transportation needs might be better met by creating a shuttle which circulates between County offices. As a temporary measure, the Mental Health Division is operating a shuttle between El Dorado Transit stops and the Mental Health office located on Pleasant Hill Drive using a 15-passenger van owned by the Department.

To determine the need for transportation, the Mental Health Department logged their clients' mode of travel and time of arrival to their offices, and the EDC Departments of Mental Health and Department of Probation also surveyed clients regarding their mode of travel to and from their offices. This data was compiled to determine if there was a sufficient pattern to warrant developing transit services which would meet these needs beyond those that are provided through existing fixed route services. A review of the data is provided below.

Summary of Daily Logs of Arrivals to Mental Health Offices

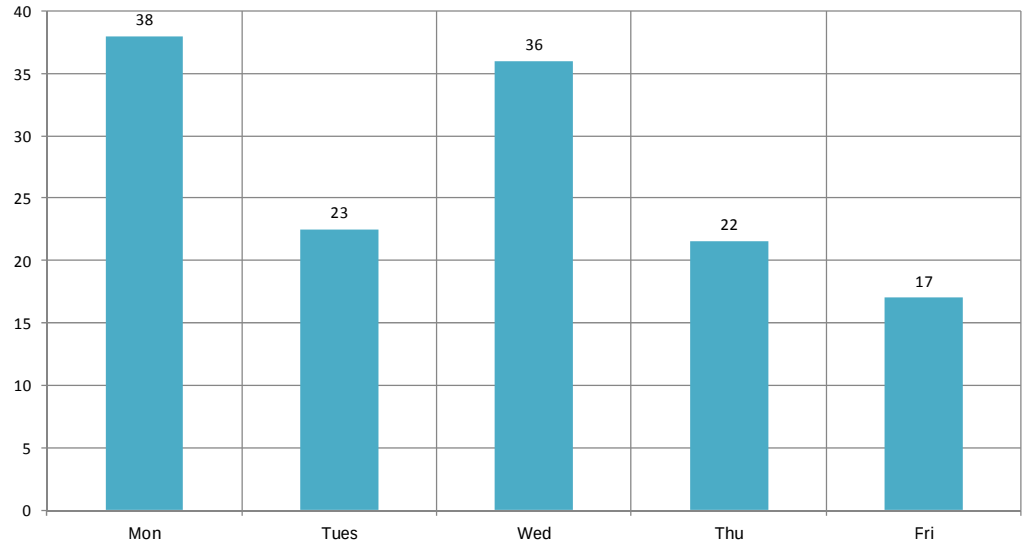
The El Dorado County Health and Human Services Department, Division of Mental Health recorded the number of clients arriving at their office (located at 768 Pleasant Valley Road in Diamond Springs) for ten weekdays. The Mental Health Outreach Program (MHOP) within this department only counted arrivals, not mode of arrival, and for eight days rather than ten: they counted 75 clients, or an average of 9.4 clients per day. The Mental Health Department counted 172 arrivals over ten days, or 17.2 clients per day. The mode split for these clients was 163 arriving by car, 12 arriving by transit, and one arriving on foot. Therefore, an estimated 7 percent are currently arriving by transit.

The average number of clients recorded per day at these offices was highest on Mondays (38 clients) followed by Wednesdays (36). Tuesdays averaged 23 clients, with 22 on Thursdays and 17 on Fridays, as shown in Figure B-1. The busiest time of arrival was between 1:00 PM and 2:00 PM, with an average of 12 clients (nearly half of the daily average of 27). The next busiest times were from 12:00 Noon to 1:00 PM and 2:00 PM to 3:00 PM, each with 4 clients. This data is shown in Figure B-2.

Summary of Client Surveys at Departments of Mental Health and Probation

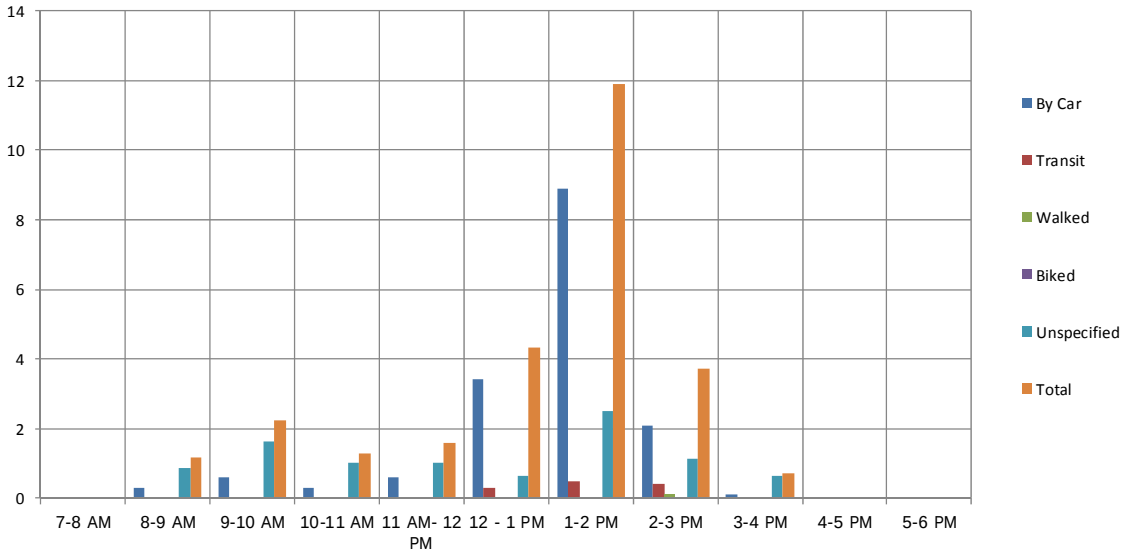
The El Dorado County Department of Probation (located at 3974 Durock Road in Shingle Springs), the El Dorado County Department of Mental Health (located at 768 Pleasant Valley Road in Diamond Springs) and the Public Defenders Office (located at 630 Main Street in Placerville) surveyed clients as they arrived at their offices in January, 2014. Clients were asked to list their mode of travel to the office in Shingle Springs, as well as to list where they were coming from or going to next. This data was requested to determine if there were patterns of travel between County offices that might make it effective to provide transit between these

FIGURE B-1: Average Daily Mental Health Outreach Program Clients by Day of Week



Based on 10 weekdays of staff-recorded attendance at Mental Health offices, 8 days at MHOP (between January 3 and 16,

FIGURE B-2: Average Daily Mental Health Client Load by Mode of Arrival and Hour



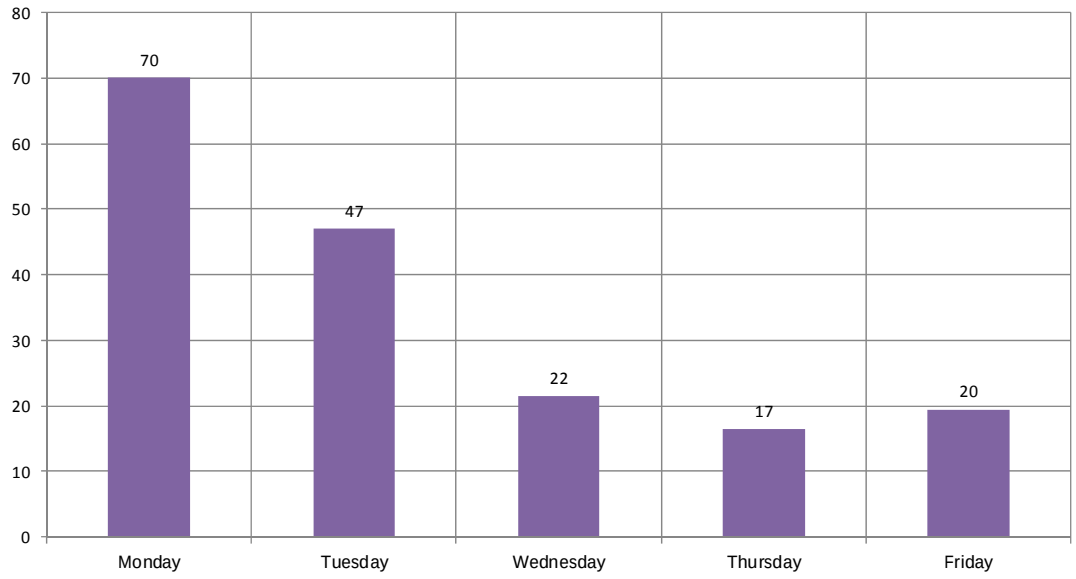
Based on 10 weekdays of staff-recorded attendance at Mental Health offices, 8 days at MHOP (between January 3 and 16, 2014).

offices. For both questions, a list of possible answers was provided. The results are summarized below.

Department of Probation Surveys

The Department of Probation surveyed clients on 8 weekdays from January 9 to January 22, 2014, excluding the Martin Luther King holiday which fell on Monday, January 20, 2014. A total of 279 responses were collected. Based on the data provided, Monday was the busiest day with 70 client visits (based on one day, January 13), followed by Tuesdays (47 clients) and Wednesdays (22 clients). This data is shown in Figure B-3.

FIGURE B-3: Average Daily Probation Department Clients by Day of Week



Based on 9 weekdays of client surveys at Probation Department from January 9 to 22, 2014 (excluding MLK Holiday).

The mode of travel to the Probation Department was primarily by car, with 60 percent of clients stating that someone had driven them and 35 percent of clients saying they had driven themselves, as shown in Figure B-4. Only 2 percent of clients arrived by transit and one percent or less by other modes such as walking, biking or motorcycle.

These clients also indicated where they were coming from or going to next by choosing from a list of 17 El Dorado County offices, several food banks, several medical facilities, a place of residence or “other”. Table B-1 shows the responses. Of 249 answering the question, 75 percent said they were coming from a residence (their own or a friends) and 35 said they were going other locations (generally personal errands not included in the list). On a typical day,

FIGURE B-4: Clients Travel To & From Mental Health & Probation by Mode of Travel

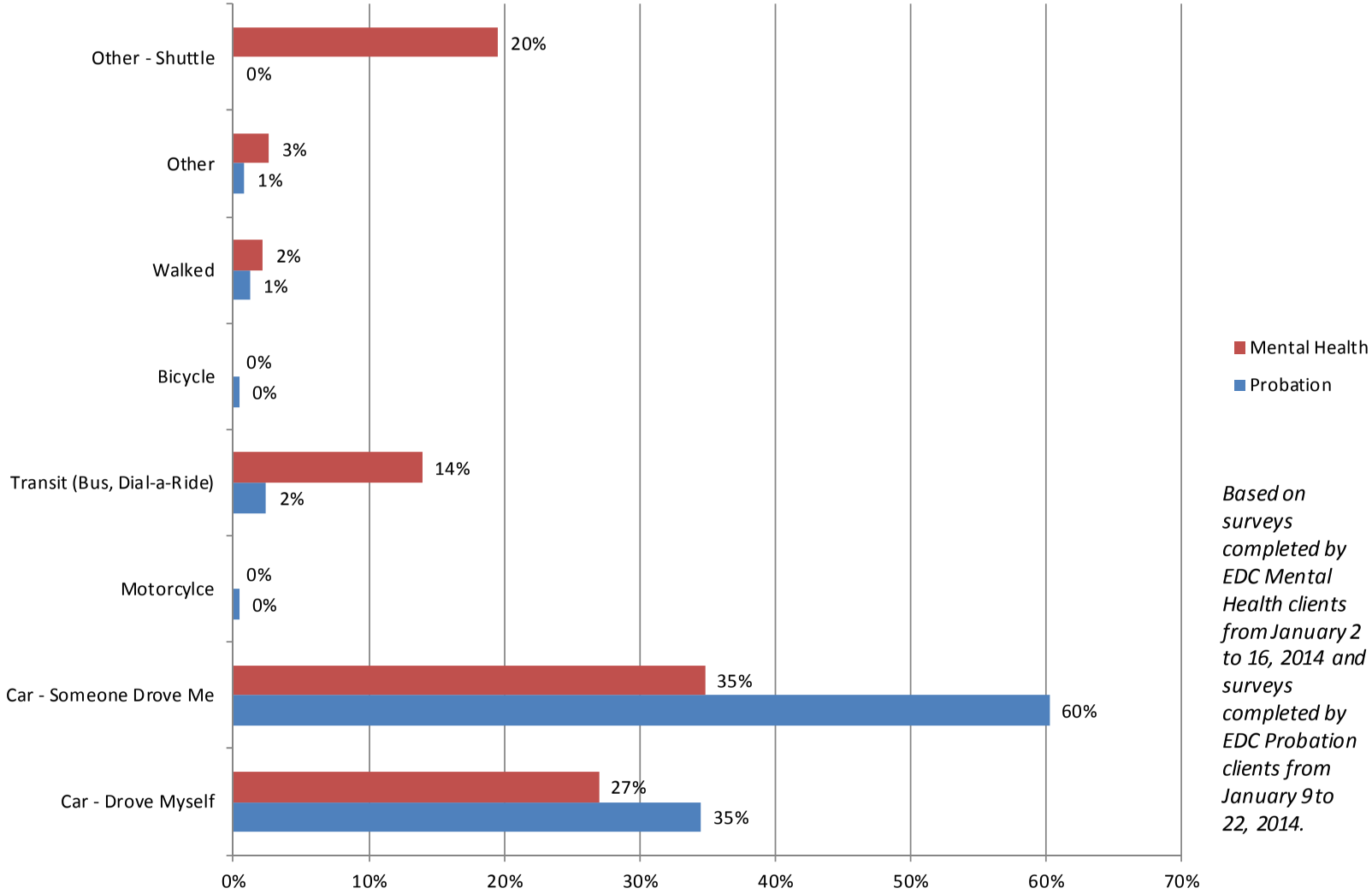


TABLE B-1: Locations that El Dorado County Clients are Coming From

	Clients Coming From Locations					
	Mental Health Clients			Probation Clients		
Location Coming From:	Over Survey Period	Percent	Average Daily	Over Survey Period	Percent	Average Daily
Home or a Friend / Relative's Home	207	85%	19	187	75%	23
"Other" (not County Office or Residence)	20	8%	2	35	14%	4
EDC Superior Court	1	0%	0	6	2%	1
EDC Jail	1	0%	0	6	2%	1
EDC Probation	0	0%	0	4	2%	1
EDC Mental Health	12	5%	1	--	--	--
EDC Child Protective Services	3	1%	0	2	1%	0
Miscellaneous	6	2%	1	9	4%	1
Total	244		22	249		31
"No Response" Not Included Above	81			30		

Location of Offices Listed

EDC Jail - 300 Forni Road, Placerville
EDC Probation - 3974 Durock Rd, Shingle Springs
EDC Mental Health - 768 Pleasant Valley Rd
EDC Child Protective Services - 3057 Briw Ridge Court, Placerville

Source: EDC Mental Health Department and EDC Probation Department Surveys conducted between January 2 to 22, 2014. Compiled by LSC Transportation Consultants, Inc.

therefore, the majority of clients (27 on average) are coming from home or another unspecified location, with one person per day coming from four specified County offices.

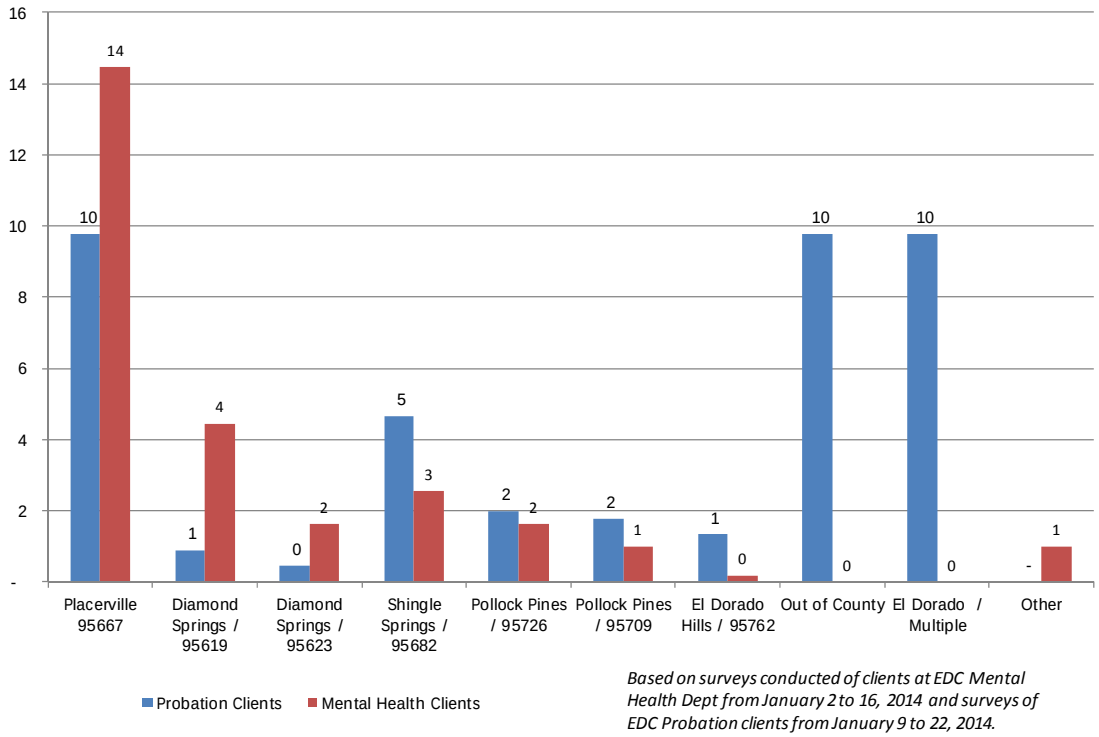
The survey also solicited residential zip codes in order to determine the location of residences where clients were coming from (or going to). Clients at the Probation Department provided 277 answers, with 88 (approximately a third) stating that they were coming to or going to a residence in Placerville zip code 95667. Additionally, 42 (15 percent) said they were going to or from Shingle Springs zip code 95682, while 46 (17 percent) were going to various zip codes in El Dorado and 43 (16 percent) said they were going to or from zip codes outside of El Dorado County. Figure B-5 shows the estimated average daily trips by zip code to and from the Department of Probation.

Department of Mental Health Surveys

The Department of Mental Health surveyed clients on 11 weekdays from January 2 to January 16, 2014. A total of 331 responses were collected. Based on the data provided, Monday was the busiest day with 70 client visits (based on one day, January 13), followed by Tuesdays (47 clients) and Wednesdays (22 clients). This data is shown in Figure B-6.

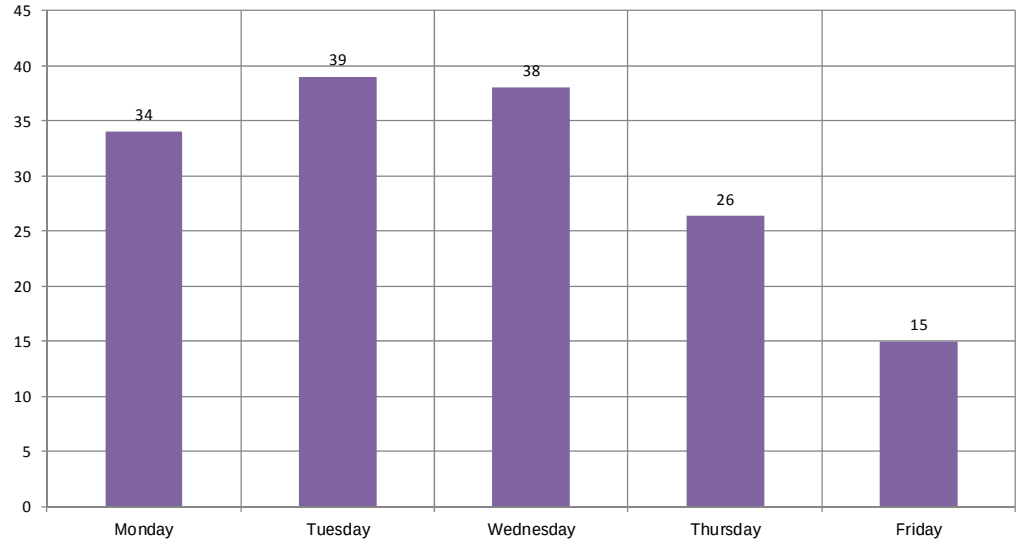
The most common mode of travel to the Department of Mental Health was by car, with 35 percent of clients stating that someone had driven them and 27 percent of clients saying they had driven themselves, as shown in Figure B-4. Additionally, 20 percent of clients use the temporary shuttle that has been put into place to help clients adjust to the relocated site, and 14 percent arrived by public transit. Another 3 percent listed “other” modes and 2 percent walked.

FIGURE B-5: Average Daily Clients By Residence Zip Code



Based on surveys conducted of clients at EDC Mental Health Dept from January 2 to 16, 2014 and surveys of EDC Probation clients from January 9 to 22, 2014.

FIGURE B-6: Average Daily Mental Health Department Clients by Day of Week



Based on 10 weekdays of client surveys at EDC Mental Health offices (between January 2 and 16, 2014).

As with the Probation Department, Mental Health clients indicated where they were coming from or going to next by choosing from a list of locations, as shown in Table B-1. Of 244 answering the question, 85 percent said they were coming from a residence (their own or a friends) and 8 said they were going other locations (generally personal errands not included in the list). On a typical day, therefore, the majority of clients (21 on average) are coming from home or another unspecified location, with one person per day coming from an appointment at the same location, and one coming from a miscellaneous location.

Mental Health clients also provided zip code information regarding where they were coming from or heading to next, providing a total of 305 responses. Approximately half (159) stated that they were coming to or going to a residence in Placerville zip code 95667. Additionally, 49 (16 percent) said they were going to or from Diamond Springs zip code 95619, and 18 (6 percent) to or from Diamond Springs zip code 95623. Another 28 clients listed Shingle Springs zip code 95862. This data was divided by eleven days to give the estimated average daily trips by zip code, as shown in Figure B-5.

Public Defenders Office

Staff at the Public Defenders Office tracked visitor travel patterns over the course of three days (January 6 through 8, 2014). Information on a total of four visitors was collected. Of these, two drove to the office and two were driven by another person. One of these persons came from the County Jail, one went to the Probation Office, one went to the Food Bank in Cameron Park, while the remainder of the trips was to/from residences.

Mental Health Van Ridership

Starting in October 2013, EDC Mental Health has been operating a van three times per weekday connecting their offices with transitional housing locations as well as transfer points to EDT services. A review of the ridership patterns on this service provides a useful picture of passenger's travel needs. An average of 16.1 one-way passenger-trips per day are served. The bulk of the ridership is generated by the Spring Street transitional housing (4.7 pickups and drop-offs), the Patterson transitional housing (3.7) and the Debbie Lane transitional housing (2.9). While six other housing locations are served, none generated 1 or more boardings or alightings per day, on average. In addition, an average of 1.9 passengers were dropped off or picked up at EDT stops.

Summary of Findings

Significant findings from the surveys above include the following:

- At both departments, there is a very high level of transportation dependency, as indicated by the number of individuals being driven to the sites, using public transit or using the temporary shuttle. Only approximately a third of clients were able to drive themselves to the offices.

- The large majority of clients were generally going to or from residential locations, with only a handful coming from other County offices, medical facilities or food banks. The residential locations are highly dispersed; 42 percent are located in Placerville zip code 95667, and 12 to 14 percent are located in Diamond Springs or Shingle Springs.

- On an average day, Mental Health has 27 clients, with nearly half (12 on average) visiting the office between 1:00 and 2:00 PM.

- On an average day, the Probation Department has 31 clients, with as many as 70 or as few as 10, with early in the week busier than later in the week.

In conclusion, these departments generate a high demand for transportation services, and it is critical that they are served by transit, particularly the Mental Health Department. However, as with the majority of trip generating locations in El Dorado County, the source of demand is residential and is highly dispersed geographically. The most effective method of serving these locations is thereby to provide transit to the highest density residential locations, particularly those that serve low income populations, and to provide connections to services to the Mental Health and Probation offices.