

## **5.4 TRAFFIC AND CIRCULATION**

This section describes potential impacts on the transportation system associated with adoption of the County General Plan. The impact analysis examines the roadway, transit, bicycle, pedestrian, and aviation components of the overall transportation system. The exhibits for the traffic and circulation analysis are provided at the end of this section.

### **5.4.1 EXISTING CONDITIONS**

#### **PHYSICAL ENVIRONMENT**

The existing physical conditions for the transportation system are described below. This description is organized by transportation system component beginning with the regional roadway system and including public transit, nonmotorized transportation, and aviation.

#### **Regional Roadway System**

El Dorado County's transportation system is focused around the roadway network. Most travel in the county is done in automobiles because the low-density development patterns have limited the viability of facilities or services related to transit, bicycle, or pedestrian use. According to the 2000 U.S. Census almost 90% of all working county residents traveled from home to work by automobile (Exhibit 5.4-1). The exhibits used for the analysis are included at the end of the section. Working at home accounted for the next highest share (about 6%), while transit, bicycling, and walking combined accounted for less than 5%. Although automobile travel is the primary function for the roadway network, the network also serves a variety of other users including drivers of trucks, buses, bicyclists, pedestrians, and in some locations, equestrians.

The roadway network is rural in character but is rapidly urbanizing in the western portion of the county. U.S. Highway 50 (U.S. 50) is the primary transportation corridor extending through the county from west to east and serves all of the county's major population centers including El Dorado Hills, Cameron Park, Shingle Springs, Placerville, Camino, Pollock Pines, and South Lake Tahoe. Other state highways, County arterials, and a network of local public and private roads constitute the remainder of the roadway system. Access to property is either directly from fronting arterial roads or from public or private local roads, many of which are narrow and unpaved.

Commuting, shopping, recreation, and shipping are responsible for most of the travel demand on the transportation system. The Lake Tahoe Basin is a popular recreational attraction, as is the Eldorado National Forest, with destinations such as Desolation Wilderness and several ski areas. Other attractions include the American River, Marshall Gold Discovery State Historic

Park, Folsom Reservoir, Sly Park Reservoir, historic downtown Placerville, and Apple Hill. Visitors come primarily from population centers to the west of El Dorado County, such as Sacramento and the San Francisco Bay area. Employment for a large portion of the residents of the western portion of the county is in the greater Sacramento area, for which U.S. 50 serves as the main commute route.

The major routes in the regional roadway system are shown according to operational classification in Exhibit 5.4-2. The classifications in Exhibit 5.4-2 indicate the operational hierarchy of the roadway system and may not be consistent with other functional classification systems used by the County. This highway network plays an important role in regional travel by connecting to and complementing the local street network. The larger highway and arterial classifications predominantly serve through travel rather than local trips. Smaller roads function as collectors funneling traffic from local streets to the highways and arterials. Exhibit 5.4-3 displays the number of through lanes on each roadway.

### ***State Highways***

State highways in El Dorado County include freeways, expressways, and conventional highways, which are operated and maintained by the California Department of Transportation (Caltrans). These highways are an integral part of the county's transportation system, serving intercounty and intercity traffic. Interstate and U.S. numbered routes are also part of the state highway system, which is maintained by Caltrans. El Dorado County has one U.S. route (U.S. 50) and four other state routes (i.e., State Routes [SRs] 49, 89, 153, and 193).

U.S. 50 is the "backbone" transportation facility in El Dorado County, providing connections to Sacramento County and the state of Nevada. It accesses nearly all of the recreation areas and tourist attractions for visitors from Sacramento and the San Francisco Bay area. U.S. 50 is also the major commute route to employment locations in the greater Sacramento area and the major shipping route for movement of goods by truck. From the Sacramento County line to Placerville, U.S. 50 is a four-lane freeway with an eastbound truck climbing lane on the steep Bass Lake grade and a short section of high-occupancy vehicle (HOV) lanes from the county line to El Dorado Hills Boulevard. HOV lanes are restricted to carpools (i.e., vehicles with two or more people), vanpools, and buses during morning and evening peak hours. U.S. 50 transitions to a conventional four-lane highway through Placerville with traffic signals at three major intersections. East of Placerville and extending into the Lake Tahoe Basin, U.S. 50 is primarily an expressway (except for a short section of four-lane freeway between Camino and Pollock Pines) with unsignalized intersections east to Ice House Road near Riverton, where the highway narrows to two lanes with passing opportunities limited mostly to locations with passing lanes and turnouts.

U.S. 50 is the most heavily traveled route in the county and also incurs the most traffic congestion. Westbound U.S. 50 from Bass Lake Road to the Sacramento County line is regularly subject to congestion for about an hour during the weekday morning peak period (i.e., 7–8 a.m.). In the eastbound direction, returning commuters cause congestion from the Sacramento County line to El Dorado Hills Boulevard/Latrobe Road that lasts about an hour during the weekday evening peak period (i.e., 5–6 p.m.). For these two sections of U.S. 50, congestion is defined as having a prevailing speed of 35 miles per hour (mph) or less for at least 30 minutes during the peak hour. Other locations with heavy volumes and instances of high delay on a typical weekday are the interchanges with U.S. 50 at El Dorado Hills Boulevard/Latrobe Road, Ponderosa Road/South Shingle Road, Missouri Flat Road, and Forni Road/Placerville Drive. These interchanges are heavily used by commuters and other local traffic.

Weekend-related travel on U.S. 50 creates other problems. The portion of U.S. 50 in Placerville is particularly affected on Fridays and during weekends when visitors are traveling to and from recreational attractions to the east. The three signals on U.S. 50 in Placerville reduce the highway's capacity compared to the approach segments. When Friday or weekend traffic volumes exceed the capacity of this portion of U.S. 50, long queues form and delays increase substantially over typical weekday conditions.

SR 49 serves north-south traffic throughout the Sierra Nevada foothills. In and near El Dorado County, SR 49 runs from Plymouth in Amador County through Diamond Springs, Placerville, Coloma, Pilot Hill, and Cool to Auburn in Placer County. The portions of SR 49 between Plymouth and Placerville, Placerville and Coloma, and Cool and Auburn contain sections that are narrow, winding, and steep.

SR 193 runs from SR 49 in Placerville to SR 49 in Cool by way of Georgetown. This two-lane highway is generally 28 feet wide (far less than the Caltrans 40-foot standard for this type of highway) except for a wider section near Georgetown and a narrower, steep, and winding section north of Placerville.

The other two state highways in El Dorado County are SR 89 and SR 153. SR 89, a north-south route in the northern Sierra Nevada, runs entirely within the Lake Tahoe Basin portion of El Dorado County, which is outside the study area for this section. Impacts on the Lake Tahoe Basin are addressed in Section 5.14, Lake Tahoe Basin. SR 153, a one-half-mile-long road that provides access from SR 49 to the Marshall Monument in Coloma, does not handle regional traffic and was not analyzed.

### ***Major County Roads***

Major county roads are also part of the regional roadway system and typically provide the arterial connections to U.S. 50. These major county roadway connections occur at the following interchanges:

- < El Dorado Hills Boulevard
- < Bass Lake Road
- < Cambridge Road
- < Cameron Park Drive
- < Ponderosa Road
- < Shingle Springs Drive
- < Greenstone Road
- < El Dorado Road
- < Missouri Flat Road

The entire list of county roads included in this study are listed in Appendix D-1 along with existing geometric and traffic count data. Key county roadways carrying more than 1,000 peak-hour trips are listed below.

- < Cameron Park Drive
- < El Dorado Hills Boulevard
- < Green Valley Road
- < Latrobe Road
- < Missouri Flat Road
- < Mother Lode Drive
- < Pleasant Valley Road
- < Ponderosa Road
- < South Shingle Road

These roadways are heavily used by commuters traveling to work and school and in most cases are also the major routes to commercial centers.

### ***Roadway Capacity and Level of Service***

The level of service (LOS) was calculated for each roadway segment in the regional roadway system to evaluate the quality of existing traffic conditions. LOS is a general measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. The LOS grades are generally defined as follows:

- < LOS A represents free-flow travel with an excellent level of comfort and convenience and the freedom to maneuver.
- < LOS B has stable operating conditions, but the presence of other road users causes a noticeable, though slight, reduction in comfort, convenience, and maneuvering freedom.
- < LOS C has stable operating conditions, but the operation of individual users is substantially affected by the interaction with others in the traffic stream.
- < LOS D represents high-density, but stable flow. Users experience severe restrictions in speed and freedom to maneuver, with poor levels of comfort and convenience.
- < LOS E represents operating conditions at or near capacity. Speeds are reduced to a low but relatively uniform value. Freedom to maneuver is difficult with users experiencing frustration and poor comfort and convenience. Unstable operation is frequent, and minor disturbances in traffic flow can cause breakdown conditions.
- < LOS F is used to define forced or breakdown conditions. This condition exists wherever the volume of traffic exceeds the capacity of the roadway. Long queues can form behind these bottleneck points with queued traffic traveling in a stop-and-go fashion.

For this General Plan update, LOS was determined by comparing existing and forecasted traffic volumes for selected roadway segments with peak-hour LOS capacity thresholds. These thresholds are shown in Table 5.4-1 and were calculated based on the methodology contained in the *Highway Capacity Manual (HCM)* (Transportation Research Board 2000). The HCM methodology is the prevailing measurement standard used throughout the United States.

The existing roadway segment LOS results are shown graphically in Exhibits 5.4-4 and 5.4-5. LOS is calculated using recent traffic count data from the County Department of Transportation and Caltrans (refer to Appendix D-1 for a complete list of counts). Exhibit 5.4-4 contains the a.m. peak-hour LOS for U.S. 50 from the Sacramento County line to Placerville. Exhibit 5.4-5 contains the p.m. peak-hour LOS for the regional roadway system.

The General Plan transportation analysis is based on the p.m. peak hour because it represents the highest hourly volume during a typical weekday. This volume is used to design future roadways because of its regular weekday occurrence. Using a higher or lower volume hour could lead to inadequate designs or designs that are underused. The one exception to exclusive use of the p.m. peak hour is for U.S. 50 from the Sacramento County line to Placerville. This section of U.S. 50 serves a high volume of commuter traffic during the a.m. and p.m. peak hours. In some cases, the a.m. peak-hour volumes, which also occur on a regular basis, are higher than p.m. peak-hour volumes. Further, U.S. 50 is a divided freeway where improvements can be made to only one direction if desired. Therefore, analyzing the

a.m. peak hour was considered necessary to identify potential impacts that may occur only during this time period.

<b>Table 5.4-1</b>					
<b>Operational Class and Peak-Hour Level-of-Service Thresholds</b>					
Operational Class	Peak-Hour Level-of-Service Capacity Threshold				
	A	B	C	D	E
Minor Two-Lane Highway	90	200	680	1,410	1,740
Major Two-Lane Highway	120	290	790	1,600	2,050
Four-Lane, Multilane Highway	1,070	1,760	2,530	3,280	3,650
Two-Lane Arterial	-	-	970	1,760	1,870
Four-Lane Arterial, Undivided	-	-	1,750	2,740	2,890
Four-Lane Arterial, Divided	-	-	1,920	3,540	3,740
Six-Lane Arterial, Divided	-	-	2,710	5,320	5,600
Eight-Lane Arterial, Divided	-	-	3,720	7,110	7,470
Two Freeway Lanes <sup>1</sup>	1,110	2,010	2,880	3,570	4,010
Two Freeway Lanes + Auxiliary Lane <sup>1</sup>	1,410	2,550	3,640	4,490	5,035
Three Freeway Lanes <sup>1</sup>	1,700	3,080	4,400	5,410	6,060
Three Freeway Lanes + Auxiliary Lane <sup>1</sup>	2,010	3,640	5,180	6,350	7,100
Four Freeway Lanes <sup>1</sup>	2,320	4,200	5,950	7,280	8,140
<sup>1</sup> LOS capacity threshold is for one direction. - LOS is not achievable due to type of facility.					
Source: Fehr & Peers 2003					

Policy 3.5.1.1 of the 1996 County General Plan sets forth the LOS standards for the county. This policy reads as follows:

The County shall adopt a roadway plan consistent with planned land use and shall maintain an operating Level of Service of “E” or better on all roadways, consistent with Objective 3.5.1. In addition, all road segments projected in the roadway plan at the year 2015 to be operating at LOS A, B, or C shall not be allowed to fall below LOS C and all road segments at LOS D shall not fall below LOS D.

This policy generally establishes that roadways would operate no worse than LOS E. In addition, the policy sets LOS C or D thresholds for roadway segments projected to operate better than LOS E under 2015 conditions with the 1996 General Plan circulation diagram roadway improvements assumed to be in place. An exception to these standards is created by Policy 3.5.1.6, which allows 14 enumerated roadway segments to operate at LOS F. Appendix D-1 contains a list of the roadway segments and corresponding LOS threshold for the existing conditions analysis.

Table 5.4-2 lists the locations with existing unacceptable LOS according to Policy 3.5.1.1.

<b>Table 5.4-2 Regional Highway System—Existing (2001) LOS Deficiencies</b>						
Roadway	Segment	Lanes	Existing Peak-Hour Count		LOS Threshold	Existing LOS
			A.M.	P.M.		
El Dorado Hills Boulevard	U.S. 50 to Lassen Lane	4	N/A	2,250	C	D
Green Valley Road	Sacramento County/Francisco Drive	2	N/A	2,110	E	F
	Salmon Falls Road to Deer Valley Road	2	N/A	1,210	C	D
Missouri Flat Road	Headington Road to U.S. 50	2	N/A	1,670	C	D
	U.S. 50/Mother Lode Drive	2	N/A	2,340	F	F
	China Garden Road to SR 49	2	N/A	1,600	C	D
Mother Lode Drive	French Creek Road to Greenstone Road	2	N/A	850	C	D
U.S. 50 eastbound	Sacramento County to El Dorado Hills Boulevard	2	N/A	3,900*	E	F**
U.S. 50 westbound	Bass Lake Road to El Dorado Hills Boulevard	2	3,830*	N/A	E	F**
	El Dorado Hills Boulevard to Sacramento County	2	3,950*	N/A	E	F**
N/A = Not Applicable. * = Counts only for vehicles passing through this segment during the peak hour and not the peak-hour demand, which was observed to be higher because of extensive queuing. ** = According to Caltrans District 3, these segments operate with LOS F conditions because the prevailing speed is less than 35 mph for at least 30 minutes during the peak period. Source: Fehr & Peers 2003						

The existing LOS deficiencies on U.S. 50, El Dorado Hills Boulevard, and Green Valley Road are caused largely by commuter traffic to and from Sacramento County. Roadway improvements across the county line have not kept pace with development in El Dorado County, creating LOS F conditions on these roadways. The other deficient roadway segments on Missouri Flat Road and Mother Lode Drive are caused by a combination of commuter and shopping traffic during peak hours, with the most severe problems occurring at the Missouri Flat Road interchange. Improvements are programmed for the interchange and connecting

roadways, but are lagging behind development in the corridor because of the reliance on traffic impact fees to fund necessary improvements.

### ***Traffic Safety***

The recent accident history for El Dorado County roadways (excluding state highways) was researched to identify locations with high accident rates. The County considers a location to have a high accident rate if the rate exceeds 1.0 accident per million vehicle miles (mvm) over the past 3 years. Exhibit 5.4-6 shows the locations with accident rates based on the County's criterion. The County considers these locations in developing roadway improvements. In some cases, the primary cause of an accident is related to driver behavior or weather, which would not be eliminated by a physical improvement.

### **Public Transportation System**

Public transportation in western El Dorado County consists of the following services and facilities.

- < El Dorado County Transit Authority (EDCTA)
- < Commercial bus services
- < Taxi service
- < Vanpools and carpools
- < Park-and-ride facilities

EDCTA serves the residents of western El Dorado County and provides scheduled fixed-route service, daily commute service to Sacramento, dial-a-ride service in Placerville and outlying communities, and chartered social service routes. Lifeline service is also provided to the elderly, the disabled, and Sacramento commuters. For the fixed-route service, seven routes are local (within El Dorado County), and 12 are commuter routes to Sacramento County (see Exhibit 5.4-7). In fiscal year 2000–2001, EDCTA served nearly 295,000 riders; the commuter service was particularly well used with an average weekday ridership of approximately 500.

Ridership on the commuter service could have been higher had park-and-ride space limitations not prevented some riders from using the service (Jackson, pers. comm., 2003). EDCTA has capacity problems at the park-and-ride lots because they are not large enough to accommodate the parking demand for the commuter bus service. New lots are being evaluated by EDCTA, but often depend on the actions by others to be implemented. For example, a new lot was planned as part of the Bass Lake Hills Specific Plan, but the specific timing is uncertain due to a number of factors affecting the potential development of this area.

EDCTA provides dial-a-ride service for areas within 30 minutes of Placerville. This service provides on-demand, door-to-door transportation primarily for elderly and disabled passengers. The dial-a-ride service is in addition to the approximate three-quarter-mile route deviations that can be requested on the local fixed-route system. Hours of operation are Monday through Wednesday, 7:30 a.m. to 5 p.m.; Thursday and Friday, 7:30 a.m. to 9 p.m.; and Saturday, 8 a.m. to 5 p.m. Fares are based on a zone system that is based on the distance from Placerville and includes a per-mile charge for destinations farther than 10 minutes from Placerville. Ridership has increased substantially in recent years to more than 15,700 passenger-trips and nearly 142,000 vehicle-miles of travel during the 2000–2001 fiscal year.

Commercial bus service is provided by Greyhound and Amtrak. Greyhound services Placerville customers with pickups and drop-offs at the Placerville Station on Mosquito Road. Greyhound will stop by reservation only on the way to and from Lake Tahoe. Amtrak also services customers at the Placerville Station who need to catch a bus to the Amtrak station in Sacramento, also by reservation only.

Lightning Taxi and All Dorado Taxi provide service in El Dorado County and are available on demand or by reservation.

Formal carpools and vanpools in El Dorado County are organized by the State of California and Vanpool Service Inc. (VPSI). Six state vanpools are operated to Sacramento for state employees who reside in El Dorado Hills, Shingle Springs, Placerville, Pollock Pines, and Rescue. Five of these vanpools travel to downtown Sacramento while one travels to the Franchise Tax Board in Rancho Cordova. VPSI operates two vans originating in Placerville, both of which are destined for downtown Sacramento.

Ridesharing through carpools and vanpools is expected to increase as HOV lanes are added to U.S. 50 from El Dorado County to downtown Sacramento. Recent one-day observations of HOV traffic counts on U.S. 50 before and after the opening of HOV lanes between El Dorado Hills Boulevard and Sunrise Boulevard revealed an increase in HOV volumes during peak hours. Table 5.4-3 shows the HOV volumes on U.S. 50 at the county line before and after the opening of the HOV lanes.

Park-and-ride lots provide a place for commuters in single-occupant vehicles to transfer to public transit or carpools. El Dorado County has 14 park-and-ride facilities with 12 facilities concentrated along U.S. 50 (see Exhibit 5.4-7 for lot locations and transit service availability). Three are privately owned, four are owned by the County, three are owned by Caltrans, three are jointly owned by the County and Caltrans, and one is an on-street parking area. These parking sites are important in encouraging ridesharing by providing a safe, attractive, and convenient place to leave a personal vehicle in order to use public transportation or another

form of ridesharing. Expansion of the existing parking lots or construction of new lots is planned as a result of population growth in El Dorado County, as well as to support the HOV lanes on U.S. 50 and continued expansion of the commuter bus service.

U.S. 50 Segment	Peak-Hour HOV Volume (a.m.)		Peak-Hour HOV Volume (p.m.)	
	Before HOV lane opening <sup>1</sup>	After HOV lane opening <sup>2</sup>	Before HOV lane opening	After HOV lane opening
Westbound at county line	317	955	692	1,003
Eastbound at county line	345	389	794	852
<sup>1</sup> Traffic counts conducted on June 13, 2002 <sup>2</sup> Traffic counts conducted on December 4, 2002 Source: Fehr & Peers 2003				

**Nonmotorized Transportation System**

The nonmotorized transportation system in El Dorado County is composed of local and regional bikeways and trails. Bicycles and other forms of nonmotorized transportation have not been widely used as a transportation mode for commuting in the county, except by students commuting to school. According to the 2000 U.S. Census, the number of trips to work in the county by bicyclists and pedestrians dropped from 2,160 in 1990 to 1,810 in 2000. This decline is likely a result of the county’s low-density development pattern and related lack of investment in bicycle and pedestrian facilities. Most bicycling and walking in the county takes place for recreational or social purposes.

The existing El Dorado County Bikeways Master Plan was developed by a citizen committee in 1979 in cooperation with the County Parks and Recreation Commission. The Board of Supervisors adopted the plan on March 11, 1980. The Hiking and Equestrian Trails Master Plan was adopted by the Board of Supervisors in April 1989. The County is in the process of revising both plans to reflect changes in development patterns since the 1980s.

Bikeways are classified into the following three types (also refer to Exhibit 5.4-8):

- < Class I—off-street bike paths
- < Class II—on-street bike lanes marked by pavement striping
- < Class III—on-street bike routes that share the road with motorized vehicles

El Dorado County has approximately 10 miles of Class I, 6 miles of Class II, and no Class III bike routes (Exhibit 5.4-9). The existing Class I routes are El Dorado Hills Boulevard from

Green Valley Road to Serrano Parkway and the El Dorado Trail from Mosquito Road to Parkway Road.

### **Aviation System**

There are four general-aviation airports within the county (see Exhibit 3-5). The Placerville Airport and the Georgetown Airport are both owned and operated by the County. Cameron Airpark Airport is owned and operated through a special (non-County) district and the South Lake Tahoe Airport is owned and operated by the City of South Lake Tahoe. The airports are used by local residents and visitors as well as military and other government agencies for training flights, search and rescue missions, and fire suppression support. The level of aircraft operations are within the existing capacity of the airports and no evidence of operational problems has been identified at any of the airports due to capacity. A brief summary of existing physical and operational conditions at each airport is provided below and is based on data available at <<http://www.airnav.com>>.

The Placerville Airport, located on top of a ridge to the southeast of the city of Placerville, has one runway (4,200 feet long and 75 feet wide) and a helipad. About 196 aircraft are based at the field. Most aircraft are single-engine planes, although three helicopters are also based at the airport. Aircraft operations average about 178 per day with 52% for transient general aviation, 46% for local general aviation, and 2% for military purposes.

The Georgetown Airport, located northwest of the community of Georgetown, has a single runway (approximately 3,000 feet long and 60 feet wide). About 25 aircraft are based at the airport with most being single-engine planes. Approximately 62 aircraft operations occur per day with 67% for transient general aviation, 31% for local general aviation, and 2% for military purposes.

The Cameron Park Airport has a single runway approximately 4,060 feet long and 50 feet wide and 179 based aircraft. Eleven of the aircraft are multiengine. Approximately 99 aircraft operations occur per day with 28% for transient general aviation, 70% for local general aviation, and 2% for air taxi purposes. The higher percentage of general-aviation use reflects the private operation of this facility.

The South Lake Tahoe Airport is the largest airport in the county in terms of runway size. It has a single runway approximately 8,544 feet long and 150 feet wide. A total of 69 aircraft are based at the airport including six multiengine planes and one jet plane. Approximately 67 aircraft operations occur per day with 70% for transient general aviation, 18% for general aviation, 7% for air taxi, 3% for commuters, 2% for military, and less than 1% for air carriers.

## **REGULATORY/PLANNING ENVIRONMENT**

Existing transportation policies, laws, and regulations that would apply to the General Plan Circulation Element are summarized below. This information provides a context for the impact discussion related to the plan's consistency with applicable regulatory conditions.

### **STATE**

The *State Route 50 Transportation Concept Report* (Caltrans 1998), like all Caltrans transportation or route concept reports, identifies long-range improvements for specific state highway corridors. These reports also establish the "concept" or desired LOS for specific corridor segments. The long-range improvements are identified to bring the existing facility up to the design concept expected to adequately serve 20-year traffic forecasts. In addition, the ultimate design concept for the facility is also identified for conditions beyond the immediate 20-year design period. For U.S. 50, the 20-year concept for the corridor is a six-lane freeway with two general-purpose lanes and one HOV lane in each direction from the Sacramento County line to the Silva Valley interchange. The ultimate facility concept for the corridor is an eight-lane freeway with three general-purpose lanes and one HOV lane in each direction from the county line to west of Placerville. Through Placerville, the 20-year concept adds a third eastbound lane and provides other associated operational improvements such as right-turn lanes and extended left-turn pockets. Ultimately, this section of the corridor is identified as a four-lane expressway. East of Placerville, the concept and ultimate facility are proposed to remain the same as the current configuration, except for the addition of passing lanes in some sections, because of topographical and environmental constraints. Caltrans has established LOS E from the Sacramento County line to Ice House Road and LOS F east of Ice House Road as the concept LOS.

The *Route Concept Report, State Route 49* (Caltrans 2000) contains the 20-year improvement concept for SR 49. The route concept recognizes the unique nature of SR 49 in terms of historical and topographic constraints, which preclude the possibility of significantly improving SR 49 on the existing alignment. As such, SR 49 would remain as a two-lane conventional highway through El Dorado County. Some improvements, such as widening to the Caltrans 40-foot pavement standard, were identified to achieve the full concept facility. The concept LOS is F south of the community of El Dorado (mileposts 0.00–9.494) and through Placerville (mileposts 13.984–15.685). All other segments have a LOS E concept. Ultimately, some segments would require widening to four lanes or spot improvements (i.e., passing lanes or improvements for bicycle and pedestrian travel).

The *State Route 193 Transportation Concept Report* (Caltrans 1999) contains the 20-year improvement concept for SR 193. Through El Dorado County, the concept service level is

LOS E. The concept and ultimate facility would maintain the existing two-lane conventional highway status. Although Caltrans does not forecast an increase in demand for this segment of SR 193, the concept report acknowledges the route's physical constraints such as narrow, steep, and winding sections and the high percentage of heavy vehicles during timber and agricultural harvests.

## **Regional**

The *Metropolitan Transportation Plan for 2025* (SACOG 2002a) is a federally mandated long-range fiscally constrained transportation plan for the six-county area that includes El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties. Most of this area is designated a federal nonattainment area for ozone, indicating that the transportation system is required to meet stringent air quality emissions budgets to reduce pollutant levels that contribute to ozone formation. To receive federal funding, transportation projects nominated by cities, counties, and agencies must be consistent with the Metropolitan Transportation Plan (MTP). Consistency is measured based on whether the project was contained in the plan and its associated computer modeling of transportation and air quality impacts. In addition, any regionally significant transportation project planned for a city or county must be included in the MTP because of its potential effect on travel demand and air pollution. The MTP contains more than \$400 million in regionally significant transportation improvements for El Dorado County.

The MTP was also adopted by the County Transportation Commission to serve as the County's Regional Transportation Plan (RTP). An RTP is a planning document developed by regional transportation planning agencies such as the County Transportation Commission in cooperation with Caltrans and other stakeholders. They are required to be developed as per state legislation (Government Code §65080 et seq.) and federal legislation (23 United States Code [USC] 134–135 et seq.). The plans are developed to provide a clear vision of the regional transportation goals, policies, objectives, and strategies. This vision must be realistic and within fiscal constraints.

Because of the fiscal constraints, some major transportation projects identified in the proposed General Plan circulation diagrams for each alternative are not included in the MTP and RTP. After adoption of the General Plan, transportation projects that are not in the current MTP will need to be added at the next MTP update.

The *2003/05 Metropolitan Transportation Improvement Program* (SACOG 2002b) is a list of transportation projects and programs to be funded and implemented over the next 3 years. The Sacramento Area Council of Governments (SACOG) submits this document to Caltrans and amends the program on a quarterly cycle. The Metropolitan Transportation Improvement

Program (MTIP) and its amendments are subject to air quality conformity analysis under federal regulations, which limit the use of federal funds for regionally significant, capacity-increasing roadway projects.

## **Local**

The *Bikeway Master Plan, El Dorado County* (El Dorado County Community Development Department 1979) was the County's first plan to identify countywide bikeway improvement needs. The plan was intended to develop a system of bikeway facilities to safely provide for bicycle travel for transportation and recreational purposes. The key goals of the plan are as follows:

- < Goal 1—To provide the foundations for a countywide network of bicycle and pedestrian pathways that reflect the wishes of the citizens in El Dorado County.
- < Goal 2—To allow the bicycle to become a safe alternative mode of transportation by providing the facilities necessary for safe bicycling.

The *Hiking & Equestrian Trails Master Plan, El Dorado County* (El Dorado County General Services Division 1990). This plan provides guidance on the development of recreational trails for walking, hiking, and horseback riding. The key goals of the plan are as follows:

- < Goal A—To provide a safe, functional, and cost-effective countywide hiking and equestrian trail system in El Dorado County.
- < Goal B—To integrate existing and proposed national, state, regional, county, city, and local hiking and equestrian trails for public use.
- < Goal C—To link existing and planned residential and employment areas with existing and planned parks, recreation, and open-space areas within the county and to abutting counties.
- < Goal D—To maximize use of the trail system by the physically handicapped and developmentally disabled.

The *El Dorado County Bicycle Transportation Plan* (El Dorado County Transportation Commission 1997) provides recommendations for implementing a comprehensive and coordinated bikeway network for making travel by bicycle a viable transportation option in El Dorado County. The three major goals of the plan are as follows:

- < Goal 1—To create a cycling network that will allow the bicycle to become a viable transportation alternative, by providing the facilities necessary for safe cycling, including

the development of a countywide bicycle network to accommodate inter- and intracommunity travel.

- < Goal 2—To encourage the expanded use of bicycles to conserve energy, reduce air pollution, and promote recreation and health.
- < Goal 3—To integrate planning, construction, operation, and maintenance of bikeways with all government entities within El Dorado County, and facilitate the aggressive acquisition of funds necessary to implement and promote the bikeways system within El Dorado County.

The *Sacramento-Placerville Transportation Corridor Draft Master Plan* (El Dorado County Transportation Commission 2002) outlines a strategy for interim and long-term uses for the former Sacramento-Placerville railroad corridor. This corridor was purchased by the Sacramento-Placerville Transportation Corridor Joint Powers Authority (SPTC-JPA), which is composed of representatives of El Dorado County, Sacramento County, the Sacramento Regional Transit District, and the City of Folsom. The draft master plan identifies multiple uses including excursion trains, trails, and utility easements.

The *El Dorado County Long Range Transit Plan* (El Dorado County Transportation Commission 1995) outlines the long-term planning steps necessary for public transit service in El Dorado County to respond to continued growth. The plan recommends a focus on commuters traveling to Sacramento County, as well as key markets such as elderly/disabled services and activity center shuttles.

### ***Measure Y***

Measure Y, known as the “Control Traffic Congestion” Initiative, was approved by county voters on November 3, 1998. As discussed in Chapter 3, this initiative measure added policies to the General Plan that require denial of residential projects of five or more parcels or units if the project will cause or worsen LOS F conditions. The Measure Y policies also require development fees to fully mitigate traffic impacts of all new development, preclude the County from using tax revenues to pay for such mitigation, and prohibit the County from adding any road segments to the list of segments allowed to operate at LOS F without voter approval.

### ***Traffic Impact Fee Programs***

The County has adopted the following four developer-funded traffic impact fee programs to pay a portion of the cost of constructing future transportation improvements.

- < The El Dorado Hills/Salmon Falls Area Road Impact Fees (RIF), Resolution 175-96, was adopted by the Board of Supervisors in July 1996.
- < The West Slope Area of Benefit Traffic Impact Mitigation (TIM) Fees, Resolution No. 201-96, was adopted by the Board of Supervisors in August 1996.
- < The Transportation Impact Fee for the State System’s Capacity & Interchanges (State TIM), Resolution No. 202-96, was adopted by the Board of Supervisors in August 1996.
- < The Interim Transportation Impact Fee for Highway 50 Corridor Improvements (Interim 50 TIM), Resolution 247-2002, was adopted by the Board of Supervisors in October 2002.

Table 5.4-4 summarizes the cost and funding aspects of each program

<b>Table 5.4-4 Traffic Impact Fee Program Summary</b>			
Fee Program	Total Cost of Improvements	Program Funded <sup>1</sup>	Non-Program Funded
RIF	\$170,589,000	\$170,589,000	\$0
TIM	\$223,992,000	\$129,915,000	\$94,077,000
State TIM	\$319,124,000	\$151,893,000	\$167,231,000
Interim 50 TIM	\$47,200,000	\$47,200,000	\$0
Total	\$760,905,000	\$499,597,000	\$261,308,000
Notes:			
<sup>1</sup> Represents new development share as established through fee resolution.			
Source: El Dorado County Department of Transportation 2003			

The non-program funded amounts shown in Table 5.4-4 do not have a specified funding source that covers the entire shortfall. Funding through the State Transportation Improvement Program (STIP) was anticipated to cover some of this amount, but the passage of Measure Y has complicated the funding picture because the County is prohibited from using tax revenues to pay for any improvements required to support new development. The County has interpreted this restriction as applying to STIP funding, which comes from gas tax revenues. Funding sources to fully cover the shortfalls have not yet been identified.

#### **5.4.2 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

This subsection describes the transportation analysis of the General Plan alternatives and identifies potential impacts and mitigation measures that would be associated with the adoption of each alternative. Quantitative impact analysis was conducted for 2025 conditions while qualitative impact analysis is provided for buildout conditions because of the uncertainty associated with conditions beyond 2025. Thresholds of significance are shown first, followed by

a discussion of the transportation analysis methodology and results, and then the impact statements and mitigation measures.

### **THRESHOLDS OF SIGNIFICANCE**

The General Plan would result in a significant impact if development would:

- < conflict with policies contained in the General Plan alternatives;
- < degrade LOS based on the following criteria for significance:
  - LOS reaching D or worse, if existing LOS is A, B, or C; and
  - Any measurable increase in traffic (defined as at least 10 vehicles in a peak hour), if existing LOS is D, E, or F; or
- < conflict with policies, plans, or programs supporting alternative transportation (e.g., transit service, carpooling, bicycling, walking).

The first LOS threshold is used to identify potential inconsistencies between the LOS policies proposed for each alternative and the projected LOS levels that would occur as a result of growth under each alternative. The second LOS threshold related to degradation below LOS C is independent of the LOS policies contained in the General Plan alternatives. Instead, the threshold was selected based on the LOS commonly used to describe acceptable conditions according to national traffic engineering guidelines. According to the *Transportation Planning Handbook* (Institute of Transportation Engineers 1992a), the *Traffic Engineering Handbook* (Institute of Transportation Engineers 1992b), and the *Highway Capacity Manual* (Transportation Research Board 2000), LOS C or D is commonly used to define acceptable conditions for planning and design studies. For areas like El Dorado County with low-density residential development, the Institute of Transportation Engineers (ITE) recommends LOS C as the design threshold; general observations have demonstrated that these areas demand slightly better LOS and are more sensitive to increases in traffic volumes. LOS C as a significance threshold is also recommended in the *Guide for the Preparation of Traffic Impact Studies* (Caltrans 2001). This approach was used to allow for an informative comparison of the alternatives given that LOS policies are different in the alternatives. By using a consistent LOS threshold to evaluate each alternative, the impact evaluation will highlight the key differences between the alternatives that might otherwise be masked by the different LOS policies of each alternative.

## **TRANSPORTATION ANALYSIS METHODOLOGY AND RESULTS**

The transportation impact analysis is focused on potential LOS impacts that would occur from increased travel demand associated with new land development under the circulation diagrams, policies, and implementation measures provided in the proposed Circulation Elements for each General Plan alternative. The circulation diagrams for each alternative are shown in Exhibits 3-5, 3-7, 3-9, and 3-10.

### **Analysis Methodology**

The transportation analysis for the roadway system followed the steps described below and outlined in Exhibit 5.4-10. For other components of the transportation system, the policies and implementation measures for each General Plan alternative were evaluated against the significance thresholds.

As shown in Exhibit 5.4-10, the transportation analysis process involved up to 14 separate steps. The following discussion describes each step.

#### ***Step 1***

The land use data for this step were developed by Economic & Planning Systems (EPS) as part of the *El Dorado County Land Use Forecasts for Draft General Plan* (EPS 2002). EPS provided allocations of future land use by traffic analysis zone (TAZ) for 2025 and buildout conditions for each equal weight alternative. A map of the County travel demand forecasting (TDF) model TAZs is contained in Appendix D-2. The TAZs are geographic polygons used to organize land use input data for the TDF model. The TAZs are defined by natural borders such as roads, waterways, and topography and typically represent areas of homogenous travel behavior.

#### ***Step 2***

The TDF model was initially run using the existing roadway network to identify potential roadway segment deficiencies. (See step 8 for more information.)

#### ***Step 3***

The land use forecasts for 2025 were input to the County TDF model, and the model was run to generate regional transportation performance measures (for use in comparing the General Plan alternatives) and peak-hour traffic volumes. This model was developed by Fehr & Peers for the purpose of analyzing roadway segments for the General Plan, major development projects, and traffic impact fee programs. The model was calibrated and validated to 1998

conditions. The model development was conducted under the direction of a technical advisory committee containing representatives from Caltrans, SACOG, the County Transportation Commission, and the County Department of Transportation. Each agency representative reviewed the model development work and approved the model as acceptable for the purposes noted above. Complete documentation for the model development work is contained in *El Dorado County Travel Demand Forecasting Model Development Report* (Fehr & Peers Associates, Inc. 1999) and is available from the County Department of Transportation.

### ***Steps 4 and 5***

The regional performance measures produced by the TDF model were used to compare the General Plan alternatives during the alternatives development phase of the General Plan process. The measures included daily vehicle trips, daily vehicle miles of travel (VMT), and daily vehicle hours of delay (VHD). The results are shown later in this section for informational purposes only.

### ***Step 6***

The TDF model produced a.m. and p.m. peak-hour traffic volumes. These volumes were used in Step 7.

### ***Step 7***

Peak-hour traffic volumes from the TDF model were analyzed through a postprocessor developed specifically for the County. This postprocessor is an Excel spreadsheet that reads raw traffic volumes from the TDF model and then adjusts these volumes to account for under- or overestimates that may have occurred in the base-year model. The postprocessor then calculates roadway segment LOS based on a table of LOS capacity thresholds as shown in Table 5.4-1.

### ***Step 8***

The postprocessor uses the peak-hour LOS to determine whether a LOS deficiency occurs. The initial run of the TDF model loads the traffic associated with future (2025) development levels for each General Plan alternative listed above onto the existing roadway network. Deficiencies occur when projected traffic volumes on an existing roadway network segment exceed the LOS threshold established for the specific General Plan alternative under analysis as discussed in Step 9.

### ***Step 9***

Each General Plan alternative has a LOS policy. These policies are used to determine whether projected traffic volumes will cause a LOS deficiency as described in Step 8. For the No Project and 1996 General Plan alternatives, the LOS policy is as follows:

**Policy 3.5.1.1:** The County shall adopt a roadway plan consistent with planned land use and shall maintain an operating Level of Service of “E” or better on all roadways, consistent with Objective 3.5.1. In addition, all road segments projected in the roadway plan at the year 2015 to be operating at LOS A, B, or C shall not be allowed to fall below LOS C and all road segments at LOS D shall not fall below LOS D.

The Roadway Constrained 6-Lane “Plus” and Environmentally Constrained alternatives contain the following LOS policy:

**Policy TC-1c:** Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions or worse than LOS D in the Rural Centers and Rural Regions except as specified in Table TC-2. Level of Service will be as defined in the latest edition of the Highway Capacity Manual and calculated using the methodologies contained in that manual. Weekday Average Daily Traffic (ADT), AM Peak Hour, and PM Peak Hour traffic volumes will be used in determining compliance with this standard.

### ***Step 10***

Existing traffic volumes and roadway geometrics are used in the initial 2025 LOS calculation to identify deficiencies as described in Step 8. Existing traffic volumes are used in the traffic volume forecasting process while the initial 2025 LOS is based on traffic volumes associated with 2025 development levels and the existing roadway geometrics (i.e., no improvements).

### ***Step 11***

Mitigation, or improvement, testing is a process where LOS deficiencies are eliminated by widening roadways or adding new roadways in the TDF model. This process involved iterative runs of the TDF model and postprocessor with different improved networks. The iterative process was necessary to identify the optimum set of improvements and ensure that trip distribution changes that occur as a result of improvements such as new roadways were addressed. The iterative process involved starting at step 2 and using an improved network versus the existing network. As a result, a complete analysis for each General Plan alternative listed above includes a deficiency run and a final improvement run.

The postprocessor analysis in this step includes an adjustment to the TDF model traffic volume forecasts for U.S. 50 if the improvement scenario included HOV lanes on U.S. 50. This adjustment reduces the traffic volume forecast for segments with HOV lanes to account for expected lane usage. The adjustment is necessary as the TDF model generates total vehicle trips and does not provide separate HOV forecasts. The expected HOV usage ranged from 10% to 15%, and is based on the HOV usage projected by the regional SACMET<sup>1</sup> travel demand model for each alternative under 2025 conditions. For example, if the SACMET HOV usage was 10% for a given segment of U.S. 50, a 10% reduction in the total volume from the TDF model would be applied and the HOV lane would not be included in the LOS calculation.

### ***Step 12***

The goal of the iterative process is to identify an improvement set that eliminates all LOS deficiencies. For each alternative, a final set of improvements was identified.

### ***Step 13***

The final improvement set was used to prepare a circulation diagram for each General Plan alternative listed above based on projected 2025 conditions.

### ***Step 14***

For some alternatives, eliminating all LOS deficiencies was not possible because the physical improvements necessary to provide an acceptable service level were considered infeasible because of constraints such as terrain, sensitive habitat, cultural resources, and right-of-way. A separate list of these locations was prepared, where necessary. In addition, the severity of traffic operational problems at these locations could adversely affect adjacent roadways or intersections. To the extent possible, this list includes these other locations as well.

### **Analysis for Buildout Conditions**

The TDF model was also run in a similar manner for buildout conditions. However, given the uncertainty associated with forecasting events associated with buildout conditions, some steps were different. The buildout runs to determine deficiencies were performed in a similar manner as described above. Specific improvements, however, were not identified through the same process because of the impracticability of planning a circulation system around physical buildout levels of development. Instead, the 2025 improved network for each alternative was run with the buildout land use forecasts to identify roadway segments that may require

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<sup>1</sup> The SACMET model was developed by SACOG and covers the entire Sacramento region and includes HOV forecasts.

improvements beyond those recommended for 2025 conditions. This information is useful to determine the ultimate right-of-way that may need to be preserved for a corridor and can help isolate the level of uncertainty associated with future forecasts. In addition, only regional performance measures are provided for buildout conditions because of the uncertainty mentioned above and the fact that the County TDF model was developed to generate 20- to 25-year forecasts and not forecasts beyond this timeframe. The 2025 forecasts were used for the LOS impact analysis.

### **Assumptions**

As part of the transportation analysis process, two key assumptions were made as described below.

#### ***Assumption 1: Commuting Characteristics***

According to the 1990 U.S. Census, approximately 60% of the El Dorado County residents in the western portion of the county (e.g., El Dorado Hills, Cameron Park) commuted to jobs in Sacramento County. This percentage was confirmed in the *El Dorado County Travel Survey* (Smith, Kempton & Watts April 2001) that was conducted in connection with the Interim Highway 50 Variable Impact Fee Program. The County (1998) TDF model includes the 60% factor in the trip generation submodel to estimate/forecast the number of work trips that originate in El Dorado County and are destined for Sacramento County.

For 2025 conditions, it was assumed that this factor would decrease because of substantial job growth projected for the El Dorado Hills area, especially for the El Dorado Hills Business Park. With job growth outpacing residential growth, more residents are expected to take advantage of the opportunity to work in the county at locations such as the El Dorado Hills Business Park versus locations in Sacramento County.

The TDF model also estimates/forecasts the number of work trips that originate in Sacramento County and are destined for El Dorado County. These types of trips, as a percentage of total work trips, are expected to increase as a result of the increase in jobs in the El Dorado Hills area. The magnitude of the change cannot be precisely determined based on a review of available data. Absent better data, the change in work trips associated with the increased number of jobs projected for the El Dorado Hills area was based on the balance between jobs and housing, which considered job type given the relatively high cost of housing in the county, and the potential for the El Dorado Hills Business Park to attract employees from outside the county. As a result, the percentage of work trips from El Dorado County to Sacramento County for residents in the El Dorado Hills to Cameron Park area in the TDF model was reduced from 60% to 50%. The percentage of work trips from Sacramento County to the El

Dorado Hills area of El Dorado County in the TDF model was increased from approximately 25% to about 50%. The effect of these changes is that a higher percentage of El Dorado County residents are assumed to have work destinations within the county. Further, the projected large increase in jobs in western El Dorado County was assumed to attract a higher percentage of workers from outside the county than under current conditions.

***Assumption 2: 1996 General Plan Alternative Circulation Diagram***

The 1996 General Plan Alternative circulation diagram is a modified version of the original 1996 General Plan circulation diagram because of changes in land use forecasting (including horizon year) and analysis methodology associated with all of the General Plan alternatives, and changes in LOS policy application.

The original 1996 General Plan circulation diagram was developed based on land use forecasts for 2015 conditions. The land use forecasts for the 1996 General Plan Alternative in this analysis are based on 2025 conditions, and the nonresidential forecasts are commensurate with residential growth with the exception of job growth in the Missouri Flat area and the El Dorado Hills Business Park. In addition, the allocation of the land use forecasts to TAZs in the TDF model for this analysis used a more detailed approach that considered existing entitlements, constraints, and accessibility.

The analysis methodology for determining roadway segment LOS was changed to reflect the 2000 HCM update, which supersedes the 1985 version used for the previous 1996 General Plan analysis and is now the standard used by Caltrans and the County Department of Transportation. The latest analysis methodology also uses peak-hour volumes instead of daily volumes, which were used in the original 1996 General Plan analysis. Peak-hour volumes are more accurate for the purpose of determining roadway segment lane requirements for roadways because they consider the directionality of traffic and the highest level of traffic likely to occur on a regular weekday basis.

The original 1996 General Plan circulation diagram was developed for 2015 conditions using a minimum acceptable LOS of E as defined in Policy 3.5.1.1. In the forecasts developed during the 1996 General Plan process, certain roadway segments were projected to operate better than LOS E in 2015 with the original 1996 General Plan circulation diagram improvements in place. According to County interpretation, Policy 3.5.1.1 established a higher LOS standard of either C or D for these roadway segments (LOS C where the projected LOS was A, B or C; LOS D where the projected LOS was D) even for existing conditions. The analysis for this EIR applied these higher LOS standards to these roadway segments in identifying the needed 2025 improvements for the No Project and 1996 General Plan alternatives (both of which include Policy 3.5.1.1), resulting in further differences with the original 1996 circulation diagram.

## **Results of the Roadway System Analysis**

The results of the transportation analysis are described in this section for each General Plan alternative. For the roadway system, the results of the analysis focused on 2025 conditions with the circulation diagram improvements assumed in place. (Technical calculations are provided in Appendix D-3.)

Analysis results are also available for 2025 conditions without the circulation improvements assumed in place. These results were used to develop the circulation diagram improvements and are provided in Appendix D-3. In general, these results show that for each of the alternatives, substantial declines in traffic levels of service would be experienced on numerous roadways if projected 2025 development occurred without roadway improvements. For example, LOS F conditions on U.S. 50 during the p.m. peak hour, which only extend between the Sacramento County line and El Dorado Hills Boulevard under existing conditions, would extend to at least Cameron Park Drive under all the General Plan alternatives. Because each of the alternatives include concurrency policies, roadway improvements are expected to generally keep pace with new development, and the impacts described in Appendix D-3 are not likely to occur. However, even under the concurrency policies, some new traffic could occur in advance of transportation improvements. This impact is analyzed below as Impact 5.4-3.

In addition to the 2025 scenarios, buildout scenarios were analyzed as described in the methodology section above. These results focused on regional performance measures, which allow for a comparison of the General Plan alternatives for conditions beyond 2025.

For the transit, bicycle, pedestrian, and aviation systems, the analysis was limited to a review of the General Plan policies and implementation measures associated with each alternative. If a potential inconsistency was discovered, a significant impact was identified.

### ***2025 Conditions***

#### **Regional Performance Measure Results**

Regional transportation performance measures generated by the travel demand model are shown in Table 5.4-5 for each alternative.

Key changes in regional travel demand that are projected to occur for each General Plan alternative include an increase in daily vehicle trips, VMT, and VHD. Increases occur for both the absolute values of these performance measures as well as the per capita values.

**Table 5.4-5  
2025 Comparison of Regional Transportation Performance Measures  
for Each General Plan Alternative**

Performance Measure	Existing Conditions (1999)	General Plan Alternatives			
		No Project	Roadway Constrained 6-Lane "Plus"	Environmentally Constrained	1996 General Plan
Population	121,000	174,610	185,601	201,730	202,241
Employment	30,434	66,622	64,889	73,145	72,630
Daily Vehicle Trips	309,200	553,070	574,160	632,750	631,470
Daily VMT <sup>1</sup>	3,293,040	5,712,600	5,820,060	6,408,690	6,399,300
Daily VHD <sup>2</sup>	4,950	35,640	41,720	50,150	50,510
Daily Vehicle Trips per Capita <sup>1</sup>	2.56	3.17	3.09	3.14	3.12
Daily VMT per Capita <sup>2</sup>	27.22	32.72	31.36	31.77	31.64
Daily VHD per Capita <sup>3</sup>	0.04	0.20	0.22	0.25	0.25
Notes:					
<sup>1</sup> Includes external trips					
<sup>2</sup> VMT = Vehicle Miles Traveled (within El Dorado County)					
<sup>3</sup> VHD = Vehicle Hours of Delay (within El Dorado County)					
Source: Fehr & Peers 2003					

The increase in daily vehicle trips per capita is the result of a combination of factors. Most new development will be very low density (less than one unit per acre) and will not be conducive to travel by bicycle, on foot, or via transit. This characteristic is included in the El Dorado County TDF model through a link to the regional SACMET TDF model. This link determines whether any reductions in vehicle trips should occur as a result of factors such as the availability of transit service or the design of land use as it relates to the potential for walking and bicycling. In addition, employment levels are projected to increase substantially in the Missouri Flat and El Dorado Hills areas. Employment in the Missouri Flat area is the result of new commercial projects such as Wal-Mart and El Dorado Villages. The nature of these projects is expected to capture regional shopping trips that would otherwise occur in Sacramento County. The employment growth in El Dorado Hills is mainly concentrated in the Town Center and the El Dorado Hills Business Park. The projected growth is high enough that workers will be attracted from neighboring counties, which will increase trips and travel within El Dorado County.

VMT will also increase as a result of three main factors:

- < Trip lengths will increase as residential land use development occurs in areas further away from commercial services and the U.S. 50 corridor.
- < Drivers will opt for longer distance alternative routes to avoid congested locations.

- < The increased job growth in the Town Center and the El Dorado Hills Business Park will attract new trips into El Dorado County.

The overall effect of these factors is an increase in countywide VMT per capita from about 27 miles to approximately 32 miles in 2025, regardless of the alternative.

As traffic volumes increase on county roadways, another effect is the reduction in average travel speeds. When volumes are high enough to force travel speeds below free-flow conditions (i.e., posted speed limits), the TDF model captures this information. The information is used to calculate VHD, which is the number of hours that vehicles are traveling below the free-flow speed of links in the TDF model. VHD is projected to increase on a per-capita basis because the future land use growth in the county will cause higher usage of the existing roadway system. Drivers can travel many county roadways at free-flow speeds resulting in a countywide average daily VHD per capita of less than 3 minutes. In the future, the higher usage of roadways will cause a reduction in speeds and drivers will incur delays, causing the countywide average daily VHD per capita to increase to about 12 minutes for the No Project and Roadway Constrained 6-Lane “Plus” alternatives, and about 15 minutes for the Environmentally Constrained and 1996 General Plan alternatives.

Another transportation characteristic that may not be apparent by reviewing Table 5.4-5 is that the No Project and Roadway Constrained 6-Lane “Plus” alternatives may induce development that causes higher traffic levels in other communities within the region because these alternatives do not have the land use capacity to accommodate the total projected population of 200,000 for the county by 2025. The SACOG MTP projected an increase in the population for the region of 928,048 between 2000 and 2025. El Dorado County’s share of this population increase was projected to be about 69,500. The Roadway Constrained 6-Lane “Plus” Alternative is projected to accommodate 64,600 persons out of the projected increase while the No Project Alternative would only accommodate about 53,610 persons. The land use capacity constraint is not expected to change the total regional growth projections, but the allocation of growth in the adjacent counties of Amador, Placer, and Sacramento would likely be affected. Under the No Project and Roadway Constrained 6-Lane “Plus” alternatives, these counties would likely have a greater share of regional growth, resulting in higher traffic levels in those counties than would likely occur under the Environmentally Constrained or 1995 General Plan alternatives (refer to Chapter 7 for more information).

### Roadway Segment Peak Hour LOS Results

Exhibits 5.4-11 through 5.4-18 show the roadway segment LOS for each General Plan alternative. Morning (a.m.) peak-hour LOS is reported for U.S. 50 from Placerville to the Sacramento County line while evening (p.m.) peak-hour LOS is reported for the major county

roadway system. As discussed in the setting, the General Plan transportation analysis is based on the p.m. peak hour because it represents the highest hourly volume during a typical weekday. The one exception to exclusive use of the p.m. peak hour is for U.S. 50 from the Sacramento County line to Placerville. This section of U.S. 50 serves a high volume of commuter traffic during the a.m. and p.m. peak hours. In some cases, the existing a.m. peak-hour volumes, which also occur on a regular basis, are higher than p.m. peak-hour volumes. Further, U.S. 50 is a divided freeway where improvements can be made to only one direction if desired. Therefore, analyzing the a.m. peak hour was considered necessary to identify potential impacts that may occur only during this time period.

As shown in Exhibits 5.4-11 through 5.4-18, most roadways would operate at LOS D or better with each alternative. In some cases, LOS E or LOS F conditions could occur. Specific roadways that would not operate acceptably based on the LOS policies of each circulation element are listed in Table 5.4-6.

Additional widening of the roadways listed in Table 5.4-6, or constructing new roadways to provide an acceptable LOS, was considered in developing the circulation diagrams. However, this option was considered too uncertain at this time for the segments in Table 5.4-6 because of physical, operational, environmental, economic, or jurisdictional issues or constraints. For example, a new north-south roadway between the El Dorado Hills Business Park and U.S. 50 (at the planned Empire Ranch interchange) through Sacramento County was tested and found to improve the LOS on Latrobe Road and White Rock Road. The feasibility of this roadway is unknown because no engineering or environmental studies have been conducted and the Sacramento County General Plan does not propose a new roadway through this area. Further, Sacramento County previously opposed improvements to White Rock Road that were proposed by El Dorado County to mitigate impacts of the Carson Creek Specific Plan.

Although this information creates uncertainty about the feasibility of new roadways at this time, other agencies may be evaluating new roadways for this area in the future. The City of Folsom recently expanded its sphere of influence to the area south of U.S. 50 and is starting the design and environmental review work for the U.S. 50/Empire Ranch Road interchange. SACOG is also preparing to move forward with a corridor study involving optional routes between Interstate 5, U.S. 50, and Interstate 80 that could include this area.

The congestion on roadway segments projected to operate at LOS F could be severe enough to adversely affect adjacent roadways in El Dorado County, Sacramento County, and the city of Folsom. When LOS F conditions occur during a peak hour, the traffic demand exceeds available capacity. This situation can create problems such as queuing at intersections, which can extend into adjacent intersections and onto adjacent roadways, compounding operational problems in a corridor and potentially affecting roadways that would otherwise operate

acceptably. When this occurs, peak-hour conditions can extend for multiple hours, resulting in peak-hour spreading and multiple hours with LOS F conditions.

<b>Table 5.4-6 2025 Level-of-Service Impacts Based on Level-of-Service Policies for Each General Plan Alternative</b>				
Roadway	Segment	LOS Threshold 1	2025 LOS 2	
			AM	PM
<b>No Project Alternative</b>				
El Dorado Hills Boulevard	U.S. 50 to Lassen Lane	C	--	D
Latrobe Road	Investment Boulevard to Carson Creek	C	--	D
	Carson Creek to White Rock Road	C	--	F
	White Rock Road to U.S. 50	C	--	F
White Rock Road	Manchester Drive to Latrobe Road	D	--	F
	Latrobe Road to Silva Valley Parkway	C	--	D
<b>Roadway Constrained 6-Lane "Plus" Alternative</b>				
U.S. 50 (westbound)	Cambridge Road to Bass Lake Road	E	F	--
	Bass Lake Road to El Dorado Hills Boulevard	E	F	--
	El Dorado Hills Boulevard to Sacramento County line	E	F	--
U.S. 50 (eastbound)	Sacramento County line to El Dorado Hills Boulevard	E	--	F
	El Dorado Hills Boulevard to Bass Lake Road	E	--	F
	Bass Lake Road to Cambridge Road	E	--	F
Latrobe Road	Carson Creek to White Rock Road	E	--	F
	White Rock Road to U.S. 50	E	--	F
White Rock Road	Manchester Drive to Latrobe Road	E	--	F
<b>Environmentally Constrained Alternative</b>				
Latrobe Road	Carson Creek to White Rock Road	E	--	F
	White Rock Road to U.S. 50	E	--	F
White Rock Road	Manchester Drive to Latrobe Road	E	--	F
<b>1996 General Plan Alternative</b>				
El Dorado Hills Boulevard	U.S. 50 to Lassen Lane	C	--	D
Latrobe Road	Investment Boulevard to Carson Creek	C	--	D
	Carson Creek to White Rock Road	C	--	F
	White Rock Road to U.S. 50	C	--	F
White Rock Road	Manchester Drive to Latrobe Road	D	--	F
	Latrobe Road to Silva Valley Parkway	C	--	E
<sup>1</sup> LOS threshold based on the LOS policy for the alternative. <sup>2</sup> The reported LOS is with the circulation diagram improvements in place. Source: Fehr & Peers 2003				

LOS F conditions are projected for Latrobe Road and White Rock Road under all four alternatives. Operational problems along these corridors could extend onto U.S. 50, El Dorado Hills Boulevard, Silva Valley Parkway, and Saratoga Way. Therefore, the LOS for these

roadways, as shown in Exhibits 5.4-11 through 5.4-18 and reported in Appendix D-2, could be worse.

For purposes of this analysis, impacts on roadway segments were also identified if either of the following would occur:

- < The existing LOS would deteriorate from LOS A, B, or C to LOS D, E, or F under 2025 conditions.
- < Any measurable traffic increase would occur on roadway segments with an existing service level of LOS D, E, or F.

These results are shown by alternative in Table 5.4-7, which follows on the next page.

***Buildout Conditions***

Regional transportation performance measures generated by the travel demand model are shown in Table 5.4-8 for each alternative under buildout conditions.

<b>Table 5.4-8 Buildout Comparison of Regional Transportation Performance Measures for Each General Plan Alternative</b>					
Performance Measure	Existing Conditions (1999)	General Plan Alternatives			
		No Project	Roadway Constrained 6-Lane "Plus"	Environmentally Constrained	1996 General Plan
Population	121,000	194,829	225,137	258,688	317,692
Employment	30,434	114,794	117,122	98,143	117,122
Daily Vehicle Trips	309,200	794,730	829,010	778,610	939,700
Daily VMT <sup>1</sup>	3,293,040	9,031,180	9,167,190	7,809,750	9,636,910
Daily VHD <sup>2</sup>	4,950	258,940	262,780	89,870	198,830
Daily Vehicle Trips per Capita	2.56	4.08	3.68	3.01	2.96
Daily VMT per Capita <sup>1</sup>	27.22	46.35	40.72	30.19	30.33
Daily VHD Per Capita <sup>2</sup>	0.04	1.33	1.17	0.35	0.63
Notes: <sup>1</sup> VMT = Vehicle Miles Traveled (within El Dorado County) <sup>2</sup> VHD = Vehicle Hours of Delay (within El Dorado County) Source: Fehr & Peers 2003					

Table 5.4-7 2025 Impacts Based on LOS "C" Impact Significance Criteria										
Roadway	Segment	Existing LOS Segment*	2025 LOS Deficiencies							
			No Project		Roadway Constrained 6-Lane "Plus"		Environmentally Constrained		1996 General Plan	
			a.m.	p.m.	a.m.	p.m.	a.m.	p.m.	a.m.	p.m.
Bass Lake Road	U.S. 50 to Country Club Drive	C	--	--	--	D	--	D	--	--
	Bass Lake to Green Valley Road	C	--	--	--	--	--	D	--	--
	Country Club Drive to Bass Lake	C	--	--	--	D	--	--	--	--
Cambridge Road	U.S. 50 eastbound ramps to Country Club Drive	C	--	D	--	D	--	D	--	D
	Country Club Drive to Oxford Road	C			--	D	--	D	--	D
Cameron Park Drive	Durock Road to Coach Lane	C	--	D	--	D	--	E	--	D
	Coach Lane to Palmer Drive	D	--	D*	--	E	--	D*	--	D*
	Oxford Road to Green Valley Road	D	--	--	--	D*	--	D*	--	--
Cold Springs Road	Placerville city limits to Cool Water Creek	C	--	--	--	D	--	D	--	D
Country Club Drive	Bass Lake Road to Merrychase Drive	C	--	D	--	D	--	D	--	D
	Merrychase Drive to Cambridge Road	C	--	--	--	--	--	D	--	--
	Cambridge Road to Royal Drive (W)	C	--	D	--	D	--	D	--	D
Country Club Drive Extension	Silva Valley Parkway to Bass Lake Road	--	--	--	--	D*	--	D*	--	--
Durock Road	Cameron Park Drive to Heinz Road	C	--	D	--	D	--	D	--	D
	Heinz Road to South Shingle Road	C	--	D	--	D	--	D	--	D
El Dorado Hills Boulevard	U.S. 50 to Lassen Lane	D	--	D*	--	D*	--	D*	--	D*
	Lassen Lane to Olson Lane	C	--	--	--	--	--	D	--	D



<b>Table 5.4-7 2025 Impacts Based on LOS "C" Impact Significance Criteria</b>										
<b>Roadway</b>	<b>Segment</b>	<b>Existing LOS Segment*</b>	<b>2025 LOS Deficiencies</b>							
			<b>No Project</b>		<b>Roadway Constrained 6-Lane "Plus"</b>		<b>Environmentally Constrained</b>		<b>1996 General Plan</b>	
			<b>a.m.</b>	<b>p.m.</b>	<b>a.m.</b>	<b>p.m.</b>	<b>a.m.</b>	<b>p.m.</b>	<b>a.m.</b>	<b>p.m.</b>
Mother Lode Drive	South Shingle Road to French Creek Road	D	--	D*	--	D*	--	E	--	E
	French Creek Road to Greenstone Road	D	--	--	--	D*	--	D*	--	--
	Greenstone Road to Pleasant Valley Road	D	--	D*	--	D*	--	D*	--	D*
North Shingle Road	Ponderosa Road to Tennessee Drive	C	--	D	--	D	--	D	--	D
	Tennessee Drive to Green Valley Road	C	--	--	--	--	--	D	--	D
Pleasant Valley Road	Mother Lode Drive to El Dorado Road	C	--	--	--	--	--	D	--	D
	El Dorado Road to SR 49 (S)	C	--	D	--	D	--	D	--	D
	SR 49 (S) to Big Cut Road	D	--	D*	--	D*	--	D*	--	D*
	Big Cut Road to Cedar Ravine Road	D	--	D*	--	D*	--	D*	--	D*
	Cedar Ravine Road to Bucks Bar Road	D	--	D*	--	D*	--	D*	--	D*
	Newton Road to Mt. Aukum Road	C	--	--	--	D	--	D	--	D
Ponderosa Road	U.S. 50 to North Shingle Road	D	--	--	--	--	--	D*	--	--
	North Shingle Road to Meder Road	D	--	D*	--	D*	--	D*	--	D*
Pony Express Trail	Ridgeway Drive to Sly Park Road	C	--	--	--	--	--	D	--	--
Salmon Falls Road	Green Valley Road to Lake Hills Drive	C	--	--	--	D	--	D	--	D
Saratoga Way Extension	Sacramento County line to El Dorado Hills Boulevard	--	--	D*	--	D*	--	D*	--	D*
Silva Valley Parkway	Serrano Parkway to Harvard Way	C	--	--	--	--	--	D	--	D
Silva Valley Parkway Extension	U.S. 50 to Serrano Parkway	--	--	D*	--	D*	--	D*	--	D*
South Shingle Road	Durock Road to U.S. 50	D	--	--	--	--	--	D*	--	--

Table 5.4-7 2025 Impacts Based on LOS "C" Impact Significance Criteria										
Roadway	Segment	Existing LOS Segment*	2025 LOS Deficiencies							
			No Project		Roadway Constrained 6-Lane "Plus"		Environmentally Constrained		1996 General Plan	
			a.m.	p.m.	a.m.	p.m.	a.m.	p.m.	a.m.	p.m.
White Rock Road	Sacramento County line to Manchester Drive	C	--	D	--	--	--	D	--	D
	Manchester Drive to Latrobe Road	C	--	F	--	F	--	F	--	F
	Latrobe Road to Silva Valley Parkway	B	--	D	--	D	--	D	--	E
SR 49	Crystal Boulevard to China Hill Road	C	--	--	--	D	--	D*	--	--
	Pleasant Valley Road to Missouri Flat Road	D	--	D*	--	D*	--	D	--	D
	Pleasant Valley Road to Placerville City	C	--	--	--	D	--	D	--	--
	SR 153 to Marshall Road	C	--	--	--	--	--	D	--	D
	Marshall Road to Rattlesnake Bar Road	B	--	--	--	D	--	D	--	--
	Rattlesnake Bar Road to SR 193	C	--	--	--	D	--	D	--	--
SR 193 to Sacramento County line	D	--	D*	--	D*	--	E	--	D*	
SR 193	SR 49 to Greenwood Road	C	--	--	--	--	--	D	--	--
U.S. 50 (westbound)	Sacramento County line to El Dorado Hills Boulevard	F/B <sup>2</sup>	--	D	F*	D	--	E	--	E
U.S. 50 (eastbound)		B/F <sup>2</sup>	D	-	D	F*	D	--	D	E
U.S. 50 (westbound)	El Dorado Hills Boulevard to Bass Lake Road	F/B <sup>2</sup>	--	D	F*	D	--	E	--	--
U.S. 50 (eastbound)		B/E <sup>2</sup>	--	--	D	F	E	--	E	--
U.S. 50 (westbound)	Bass Lake Road to Cambridge Road	D/C <sup>2</sup>	--	D	F	D	D*	--	D*	--
U.S. 50 (eastbound)		B/D <sup>2</sup>	D	--	D	F	--	D*	--	D*
U.S. 50 (westbound)	Cambridge Road to Cameron Park Drive	D/C <sup>2</sup>	E*	D	D*	D	--	E	--	E
U.S. 50 (eastbound)		B/D <sup>2</sup>	D	E*	D	E	E	D*	--	--

<b>Table 5.4-7 2025 Impacts Based on LOS "C" Impact Significance Criteria</b>											
<b>Roadway</b>	<b>Segment</b>	<b>Existing LOS Segment*</b>	<b>2025 LOS Deficiencies</b>								
			<b>No Project</b>		<b>Roadway Constrained 6-Lane "Plus"</b>		<b>Environmentally Constrained</b>		<b>1996 General Plan</b>		
			<b>a.m.</b>	<b>p.m.</b>	<b>a.m.</b>	<b>p.m.</b>	<b>a.m.</b>	<b>p.m.</b>	<b>a.m.</b>	<b>p.m.</b>	
U.S. 50 (westbound)	Cameron Park Drive to Ponderosa Road	D/B <sup>2</sup>	D*	D	D*	D	D*	D	D*	--	
U.S. 50 (eastbound)		B/D <sup>2</sup>	D	D*	D	D*	D	E	E	E	
U.S. 50 (westbound)	Ponderosa Road to Shingle Springs Drive	B/A <sup>2</sup>	--	D	D	D	D	E	D	D	
U.S. 50 (eastbound)		B/C <sup>2</sup>	D	D	D	D	E	D	D	D	
U.S. 50 (westbound)	Shingle Springs Drive to Greenstone Road	B/B <sup>2</sup>	--	--	--	--	D	D	D	D	
U.S. 50 (eastbound)		B/C <sup>2</sup>	--	D	--	D	D	D	--	D	
U.S. 50 (westbound)	Greenstone Road to El Dorado Road	B/B <sup>2</sup>	--	--	--	D	--	D	--	D	
U.S. 50 (eastbound)		B/C <sup>2</sup>	--	--	--	--	D	D	D	D	
U.S. 50 (eastbound)	El Dorado Road to Missouri Flat Road	B/C <sup>2</sup>	--	--	--	--	--	D	--	D	
U.S. 50 (westbound)	Missouri Flat Road to Placerville city limits	C/C <sup>2</sup>	--	D	--	D	--	D	--	D	
U.S. 50 (eastbound)		B/C <sup>2</sup>	--	--	--	--	D	--	D	--	
U.S. 50	Newton Road to Carson Road (W)	D	--	D*	--	D*	--	D*	--	D*	
	Carson Road (W) to Cameron Road (E)	C	--	D	--	D	--	D	--	D	
	Sly Park Road to Fresh Pond	D	--	--	--	D*	--	--	--	--	
	Ice House Road to Echo Lake	D	--	E*	--	E	--	F	--	F	
<p>* Denotes an exacerbation of unacceptable LOS under existing conditions or unacceptable LOS for a new roadway.                      -- Denotes that no impact occurs.  <sup>1</sup> PM only unless otherwise noted.  <sup>2</sup> AM/PM                      Source: Fehr &amp; Peers 2003</p>											

The regional transportation performance measures under buildout conditions were generated for comparative purposes only and are not meant to provide a projection of actual future traffic conditions in the county. There are numerous uncertainties involved in modeling traffic in the buildout scenario. For example, while maximum buildout of any given area of the county is always a possibility, it is much less realistic to assume that maximum buildout of available land would occur countywide. Economic, environmental, physical, political, and other constraints are likely to limit maximum development in parts of the county, either as a practical matter or through application of the policies in the proposed General Plan alternatives reflecting those constraints.

In addition, the TDF model is not designed to accurately evaluate conditions beyond a 20- to 30-year planning horizon. For example, the buildout population and employment projections for each alternative, if they were to be fully realized, would substantially change the housing and employment mix in the county. The change would require making substantial changes to the future percentage of trips that were assumed to occur within El Dorado County given the housing and employment mix. For the buildout scenario, these assumptions would have such a wide range that the buildout traffic volumes could vary by over 50% on some roadways, which makes any conclusions based on a particular set of assumptions unreliable. In addition, the high level of demand compared to capacity that is shown for some roadway segments at buildout is outside realistic parameters and may indicate travel patterns that would not likely occur.

Despite these limitations, the effects of each alternative on regional transportation performance measures at buildout were estimated to illustrate a hypothetical worst-case traffic scenario and to provide a basis for comparing the effects of the proposed alternatives under buildout conditions. As Table 5.4-8 shows, for all of the alternatives, daily vehicle trips would more than double compared to existing conditions. The Roadway Constrained 6-Lane “Plus” and No Project alternatives would result in similar increases (152% and 157%, respectively). The increase would be greater for the Environmentally Constrained Alternative (168%) and greatest for the 1996 General Plan Alternative (204%).

Although the buildout results contain a high degree of uncertainty, the traffic volume forecasts were reviewed to determine roadways that may require more lanes than recommended in the circulation diagrams for each General Plan alternative to maintain acceptable LOS for conditions beyond 2025. Table 5.4-9 contains the list of roadways that would likely require additional widening or improvement under all of the alternatives.

<b>Table 5.4-9 Potential Major Roadway Segments Requiring Improvements Beyond Those Planned in the 2025 Circulation Diagram</b>	
Roadway	Segment
Bass Lake Road	Country Club Drive to Bass Lake
Cameron Park Drive	Durock Road to Green Valley Road
Country Club Drive	Bass Lake Road to Cameron Park Drive
Durock Road	Cameron Park Drive to Shingle Road
Green Valley Road	Sacramento County line to Salmon Falls Road
	Deer Valley Road to Placerville
Latrobe Road	South Shingle Road to Investment Boulevard
Missouri Flat Road	U.S. 50 to China Garden Road
Mother Lode Drive	South Shingle Road to French Creek Road
	Greenstone Road to Pleasant Valley Road
Ponderosa Road	North Shingle Road to Meder Road
Silva Valley Parkway	U.S. 50 to Serrano Parkway
South Shingle Road	Durock Road to U.S. 50
U.S. 50 (both directions)	Sacramento County line to Ponderosa Road
	Ponderosa Road to Placerville
Source: Fehr & Peers 2003	

The improvements to these roads that would be needed to accommodate buildout-level traffic cannot be precisely determined because of modeling limitations. However, if full buildout were to occur, substantial improvements beyond what are shown in the circulation diagrams for each alternative would be required. The degree of these improvements would depend on the actual population and employment levels that were reached, and would also depend on the location and mix of land uses. As a result, travel demand and the need for roadway improvements could vary substantially for each alternative.

The roadway segments potentially requiring improvement for conditions beyond 2025 because of LOS impacts based on General Plan policies would most likely follow a range similar to the buildout population distribution. The 1996 General Plan Alternative would have the highest level of population under buildout conditions. The projected buildout population of 317,690 for this alternative is more than 120,000 people higher than the No Project Alternative and 59,000 to 92,550 people higher than the Environmentally Constrained and Roadway Constrained 6-Lane “Plus” alternatives, respectively.

## **Results of the Public Transportation System Analysis**

A review of each General Plan alternative revealed potential issues related to transit service capacity, the attainability of transit-related goals in the proposed General Plan alternatives, and potential inconsistencies with other adopted plans or programs supporting the provision of transit service in El Dorado County and the Sacramento metropolitan region. These issues are discussed below.

### ***Transit Service Capacity***

As noted in Existing Conditions above, the commuter bus service has existing capacity problems because of insufficient spaces at park-and-ride lots. Although EDCTA is planning to expand some existing lots and construct new lots, the implementation steps often require County approval or approval from other agencies. Currently, about 630 park-and-ride spaces are located along the U.S. 50 corridor served by the commuter buses. This equates to about 5.2 parking spaces per 1,000 residents. With population increases expected under each General Plan alternative, a total of 910 to 1,050 total park-and-ride spaces would be required to maintain the current park-and-ride lot space to 1,000 residents ratio. The General Plan alternatives do not contain specific actions that require or guarantee the construction of new park-and-ride spaces to overcome existing capacity problems or to provide for new population growth.

### ***Attainability of Transit-Related Goals***

Goal 3.6 of the Circulation Element for the No Project and the 1996 General Plan alternatives states, "Serve the people of El Dorado County by encouraging and supporting high quality public transportation services that are convenient, safe, efficient, and effective." The proposed land use and circulation plans for each General Plan alternative are not conducive for many types of public transit service (such as frequent fixed-route bus service or light-rail transit) to be convenient, efficient, or effective. In particular, the low-density land use plans (i.e., less than one unit per acre for most new development) make transit inconvenient and costly to provide, which adversely affects potential ridership. According to *Public Transportation and Land Use Policy* (Pushkarev and Zupan 1977), a minimum of four dwelling units per acre are necessary to support basic fixed-route transit service and seven to 15 units per acre (over a contiguous area of at least 25 square miles) are necessary to provide intermediate to high frequency service, which would be considered a convenient or high quality LOS. None of the alternatives would allow for significant development at the densities needed to sustain a substantial increase in fixed-route service levels.

### ***Potential Inconsistencies with the County Regional Transportation Plan***

The County Transportation Commission adopted the SACOG MTP as the RTP for El Dorado County. The MTP has a goal that states, “Provide affordable, convenient, safe, and integrated travel choices.” As discussed above, the low-density land use plans in the General Plan alternatives are not conducive to transit and force residents to choose the automobile to complete almost any trip. Further, low-density development patterns are expensive to serve with new or expanded roadways and do not allow for potential economies of scale that occur with higher density development.

### **Results of the Nonmotorized Transportation System Analysis**

A review of the Circulation Elements for each General Plan alternative did not reveal potential internal policy inconsistencies or inconsistencies with other adopted plans or programs supporting the provision of nonmotorized transportation facilities or services in El Dorado County. In general, the bikeway, trail, and equestrian plans prepared for the county recognize its low-density development patterns and recommendations have been developed for facilities that are consistent with this pattern. None of the proposed General Plan alternatives would preclude attainment of the objectives of these plans. The specific plans and programs against which the General Plan alternatives were reviewed are listed in Regulatory/Planning Environment above.

### **Results of the Aviation System Analysis**

A review of the Circulation Elements for each General Plan alternative revealed no potential internal policy inconsistencies or discrepancies with other adopted plans or programs supporting the provision of aviation facilities or services in El Dorado County. In addition, demand for aviation facilities or services, which may increase slightly with population and employment growth in El Dorado County, is not expected to cause operational problems at airports in the county. The existing airports have relatively low levels of usage (about 60-180 aircraft operations per day) and could accommodate expected increases in usage. The specific plans and programs against which the General Plan alternatives were reviewed are listed in Regulatory/Planning Environment above.

**Impact  
5.4-I**

**Potential Inconsistencies with LOS Policies.** LOS conditions are projected to degrade to LOS F on roadways not permitted to operate at this level, causing inconsistencies with relevant General Plan policies. This impact is considered **significant**. At 2025 the severity of this impact would be greatest under the Roadway Constrained 6-Lane “Plus” Alternative, followed by the No Project and 1996 General Plan alternatives, and then the Environmentally Constrained

Alternative. At buildout the severity of the impact would be greatest under the 1996 General Plan Alternative, followed by the Environmentally Constrained, Roadway Constrained 6-Lane “Plus,” and No Project alternatives. Impact significance before and after mitigation is shown in the table below.

Impact	Significance Before Mitigation*							
	Alt. #1 (No Project)		Alt. #2 (Roadway Constrained 6-Lane “Plus”)		Alt. #3 (Environmentally Constrained)		Alt. #4 (1996 General Plan)	
	2025	Buildout	2025	Buildout	2025	Buildout	2025	Buildout
5.4-1: Potential Inconsistencies with LOS Policies	S <sub>2</sub>	S <sub>4</sub>	S <sub>1</sub>	S <sub>3</sub>	S <sub>3</sub>	S <sub>2</sub>	S <sub>2</sub>	S <sub>1</sub>
Mitigation	Significance After Mitigation*							
	Alt. #1 (No Project)		Alt. #2 (Roadway Constrained 6-Lane “Plus”)		Alt. #3 (Environmentally Constrained)		Alt. #4 (1996 General Plan)	
	2025	Buildout	2025	Buildout	2025	Buildout	2025	Buildout
5.4-1(a): Amend the Circulation Diagram to Include a New Arterial Roadway from El Dorado Hills Business Park to U.S. 50	SU <sub>2</sub>	SU <sub>4</sub>	SU <sub>1</sub>	SU <sub>3</sub>	SU <sub>3</sub>	SU <sub>2</sub>	SU <sub>2</sub>	SU <sub>1</sub>
5.4-1(b): Add New Growth Control Implementation Measure	LS	LS	LS	LS	LS	LS	LS	LS
5.4-1(c): Modify LOS Policies	LS	LS	LS	LS	LS	LS	LS	LS
5.4-1(d): Amend the Circulation Diagram to Include a Frequent Transit Service on Exclusive Right-of-Way to the El Dorado Hills Business Park	SU <sub>2</sub>	SU <sub>4</sub>	SU <sub>1</sub>	SU <sub>3</sub>	SU <sub>3</sub>	SU <sub>2</sub>	SU <sub>2</sub>	SU <sub>1</sub>
* Notes: LS = Less than Significant; N/A= Not Applicable; P = Potentially Significant; S = Significant; SU = Significant and Unavoidable. Significant impacts for the 2025 scenario and the buildout scenario are ranked against each other by alternative, from 1 (Worst Impact) to 4 (Least Impact). Where the impact under two different alternatives during the same time frame would be roughly equal in severity, the numerical ranking is the same.								

## **No Project Alternative (Alternative #1)**

### ***Relevant Goals/Policies—No Project Alternative***

The relevant policies included in the 1996 General Plan that are applicable to the No Project Alternative are Policies 3.5.1.1, 3.5.1.6, and 3.5.1.6.2.

Policy 3.5.1.1 establishes the County's minimum acceptable LOS thresholds, which range from LOS C to LOS E. Policy 3.5.1.6 acknowledges that achieving the thresholds established by Policy 3.5.1.1 is not always possible or desirable and allows selected roadway segments to operate at LOS F. Policy 3.5.1.6.2 does not allow roadways to be added to the LOS F list without voter approval.

### ***No Project Alternative (2025)—Impact Discussion***

Based on the analysis results listed in Table 5.4-6, El Dorado Hills Boulevard, Latrobe Road, and White Rock Road are projected to have six roadway segments with a 2025 LOS that is worse than the minimum acceptable thresholds established by Policies 3.5.1.1, 3.5.1.6, and 3.5.1.6.2. Of the six segments, LOS F conditions would occur on two segments of Latrobe Road and one segment of White Rock Road.

Congestion on the roadway segments projected to operate at LOS F could be severe enough to adversely affect adjacent roadways in El Dorado County, Sacramento County, and the city of Folsom. When LOS F conditions occur during a peak hour, the traffic demand exceeds available capacity. This situation can create problems such as queuing at intersections, which can extend into adjacent intersections and onto adjacent roadways, thus compounding operational problems in a corridor and potentially affecting roadways that would otherwise operate acceptably. When this occurs, peak-hour conditions can extend for multiple hours, resulting in peak-hour spreading and multiple hours with LOS F conditions. LOS F conditions are projected for Latrobe Road and White Rock Road under the No Project Alternative. Operational problems along these corridors could extend to adjacent segments and onto other roadways such as U.S. 50, El Dorado Hills Boulevard, Silva Valley Parkway, and Saratoga Way.

Transit-related policies applicable to the No Project Alternative call for the development of high-quality public transportation services. Increased public transit, if it could be made effective, would partially offset increases in traffic demand. However, as discussed in the public transportation system analysis above, the low-density land use plans of each General Plan alternative (i.e., less than one unit per acre for most new development) make most forms of public transit inconvenient and costly to provide, which adversely affects potential ridership. In addition, due in part to restrictions in the Writ that prohibit new subdivisions, the density of

development projected for the No Project Alternative by 2025 would be difficult to change. Thus, the transit policies would not substantially reduce traffic demand under this or any of the General Plan alternatives. This impact is considered significant.

***No Project Alternative (Buildout)—Impact Discussion***

Under the No Project Alternative, traffic impacts at full buildout would result in an additional increase in vehicle trips compared to 2025 conditions, which is likely to result in additional LOS deficiencies. The roadway segments identified in Table 5.4-9 are the segments most likely to require widening in excess of the improvements listed in the proposed circulation diagram to provide acceptable levels of service beyond 2025 conditions, but these improvements may not be feasible. Given the uncertainty of conditions beyond 2025, LOS may also degrade on other roadways not listed in the table.

In comparison to the other alternatives, the No Project Alternative would have the fewest number of potential LOS impacts for conditions beyond 2025. This ranking is based on projected buildout population:

- < No Project Alternative (buildout population = 194,829)
- < Roadway Constrained 6-Lane “Plus” Alternative (buildout population = 225,137)
- < Environmentally Constrained Alternative (buildout population = 258,688)
- < 1996 General Plan Alternative (buildout population = 317,692)

**Roadway Constrained 6-Lane “Plus” Alternative (Alternative #2)**

***Relevant Goals/Policies—Roadway Constrained 6-Lane “Plus” Alternative***

The relevant policies that are applicable to the Roadway Constrained 6-Lane “Plus” Alternative are Policies TC-1c, TC-1d, and TC-1f.

Policy TC-1c establishes the County’s minimum acceptable LOS thresholds, which range from LOS D to LOS E with the exceptions noted in Table TC-2. Policy TC-1d does not allow new discretionary residential projects to result in, or worsen, LOS F conditions unless approved by voters per Policy TC-1f.

***Roadway Constrained 6-Lane “Plus” Alternative (2025)—Impact Discussion***

Based on the analysis results listed in Table 5.4-6, U.S. 50, Latrobe Road, and White Rock Road are projected to have nine roadway segments with a 2025 LOS that is worse than the minimum acceptable thresholds established by Policies TC-1c, TC-1d, and TC-1f. Of the nine segments,

LOS F conditions would occur on six segments of U.S. 50, two segments of Latrobe Road, and one segment of White Rock Road.

Congestion on the roadway segments projected to operate at LOS F could be severe enough to adversely affect adjacent roadways in El Dorado County, Sacramento County, and the City of Folsom. LOS F conditions are projected for U.S. 50, Latrobe Road, and White Rock Road under the Roadway Constrained 6-Lane “Plus” Alternative. Operational problems along these corridors could extend to adjacent segments and onto other roadways such as El Dorado Hills Boulevard, Silva Valley Parkway, and Saratoga Way. This impact is considered significant.

Similar to the No Project alternative, increased public transit, if it could be made effective, would partially offset increases in traffic demand. However, as discussed in the public transportation system analysis above, the low-density land use plans of each General Plan alternative (i.e., less than one unit per acre for most new development) make most forms of public transit inconvenient and costly to provide, which adversely affects potential ridership. Thus, the transit policies would not substantially reduce traffic demand under this or any of the General Plan alternatives.

#### ***Roadway Constrained 6-Lane “Plus” Alternative (Buildout)—Impact Discussion***

Please refer to No Project Alternative (Buildout)—Impact Discussion above. This impact is considered significant.

#### **Environmentally Constrained Alternative (Alternative #3)**

##### ***Relevant Goals/Policies—Environmentally Constrained Alternative***

For the relevant policies of the Environmentally Constrained Alternative, please refer to the policies listed above under the Roadway Constrained 6-Lane “Plus” Alternative.

##### ***Environmentally Constrained Alternative (2025)—Impact Discussion***

Based on the analysis results listed in Table 5.4-6, Latrobe Road and White Rock Road are projected to have three roadway segments with a 2025 LOS that is worse than the minimum acceptable thresholds established by Policies TC-1c, TC-1d, and TC-1f. All three of the segments would operate at LOS F.

Congestion on the roadway segments projected to operate at LOS F could be severe enough to adversely affect adjacent roadways in El Dorado County, Sacramento County, and the City of Folsom. LOS F conditions are projected for Latrobe Road and White Rock Road under the

Environmentally Constrained Alternative. Operational problems along these corridors could extend to adjacent segments and onto other roadways such as U.S. 50, El Dorado Hills Boulevard, Silva Valley Parkway, and Saratoga Way. This impact is considered significant.

Similar to the Roadway Constrained 6-Lane “Plus” alternative, increased public transit, if it could be made effective, would partially offset increases in traffic demand. However, as discussed in the public transportation system analysis above, the low-density land use plans of each General Plan alternative (i.e., less than one unit per acre for most new development) make most forms of public transit inconvenient and costly to provide, which adversely affects potential ridership. Thus, the transit policies would not substantially reduce traffic demand under this or any of the General Plan alternatives.

#### ***Environmentally Constrained Alternative (Buildout)—Impact Discussion***

Please refer to the No Project Alternative (Buildout)—Impact Discussion above. This impact is considered significant.

#### **1996 General Plan Alternative (Alternative #4)**

##### ***Relevant Goals/Policies—1996 General Plan Alternative***

For the relevant policies of the 1996 General Plan Alternative, please refer to the policies listed above under Relevant Goals/Policies—No Project Alternative.

##### ***1996 General Plan Alternative (2025)—Impact Discussion***

Based on the analysis results contained in Table 5.4-6, El Dorado Hills Boulevard, Latrobe Road, and White Rock Road are projected to have six roadway segments with a 2025 LOS that is worse than the minimum acceptable thresholds established by Policies 3.5.1.1, 3.5.1.6, and 3.5.1.6.2. Of the six segments, LOS F conditions would occur on two segments of Latrobe Road and one segment of White Rock Road.

Congestion on the roadway segments projected to operate at LOS F could be severe enough to adversely affect adjacent roadways in El Dorado County, Sacramento County, and the city of Folsom. LOS F conditions are projected for Latrobe Road and White Rock Road under the 1996 General Plan Alternative. Operational problems along these corridors could extend to adjacent segments and onto other roadways such as U.S. 50, El Dorado Hills Boulevard, Silva Valley Parkway, and Saratoga Way. This impact is considered significant.

***1996 General Plan Alternative (Buildout)—Impact Discussion***

Please refer to No Project Alternative (Buildout)—Impact Discussion above. This impact is considered significant.

**Mitigation Measure 5.4-1—No Project Alternative**

The County shall implement one of the following mitigation measures:

- < Mitigation Measure 5.4-1(a): Amend the Circulation Diagram to Include a New Arterial Roadway from El Dorado Hills Business Park to U.S. 50
- < Mitigation Measure 5.4-1(b): Add New Growth Control Implementation Measure
- < Mitigation Measure 5.4-1(c): Modify LOS Policies
- < Mitigation Measure 5.4-1(d): Amend the Circulation Diagram to Include a Frequent Transit Service on Exclusive Right-of-Way to the El Dorado Hills Business Park

These mitigation measures are described below.

***Mitigation Measure 5.4-1(a): Amend the Circulation Diagram to Include a New Arterial Roadway from El Dorado Hills Business Park to U.S. 50***

**New Policy:** The County shall amend the No Project alternative circulation diagram to include a new arterial roadway from the west side of the El Dorado Hills Business Park to U.S. 50.

Operations analysis for this potential mitigation measure showed that LOS E or better could be provided during the p.m. peak hour under 2025 conditions on El Dorado Hills Boulevard, Latrobe Road, and White Rock Road with this connection in place. In addition, the potential for LOS F conditions to spread to adjacent roadway segments and connecting roadways would be eliminated for 2025 conditions. This mitigation measure is embodied in comparative alternative #10 in Chapter 6.

Construction of the new arterial roadway proposed by Mitigation Measure 5.4-1(a) would eliminate the projected inconsistencies with the LOS standards for this alternative and would reduce this impact to a less-than-significant level. Implementation of the measure cannot be assured, however, because it would require approval from Sacramento County, the City of Folsom, and Caltrans. Sacramento County previously opposed improvements to White Rock Road proposed as mitigation for the Carson Creek Specific Plan. The feasibility of this measure is also uncertain because detailed planning, engineering, and environmental studies for the

new roadway have not been completed. For similar reasons, the county may be unable to provide acceptable LOS beyond 2025 conditions to accommodate buildout development levels. Therefore, this impact would remain significant and unavoidable.

In addition, although the impacts of this roadway have not yet been specifically analyzed, it is likely that this mitigation measure would cause secondary environmental impacts related to the consumption of physical space or habitat and an increase in impervious surfaces associated with the new roadway.

***Mitigation Measure 5.4-1(b): Add New Growth Control Implementation Measure***

The County shall add the following growth control implementation measure to avoid potential violations of LOS thresholds. The mitigation measure is embodied in comparative alternative #9 in chapter 6.

**New Implementation Measure:** The County shall implement a growth control mechanism for all new discretionary and ministerial development (which includes approved development that has not yet been built) that would access Latrobe Road or White Rock Road. This mechanism shall be designed to ensure that the 2025 p.m. peak-hour volumes on El Dorado Hills Boulevard, Latrobe Road, and White Rock Road do not exceed the minimum acceptable LOS thresholds defined in Policies 3.5.1.1, 3.5.1.6, and 3.5.1.6.2 with the circulation diagram improvements assumed in place. As such, the measure should consider a variety of methods that control or limit growth and the resulting traffic including, but not limited to, the acquisition of development rights, incentives or disincentives not to travel during peak hours on affected roadways, and changes in allowed development intensities. The County shall monitor peak-hour traffic volumes and LOS beyond 2025 and, if necessary, shall implement growth control mechanisms in any part of the county where the LOS thresholds defined in the General Plan policies listed above cannot be maintained.

Implementation of Mitigation Measure 5.4-1(b) would reduce this impact to a less-than-significant level. The County would be required to implement a targeted growth control program to reduce traffic in the El Dorado Hills market area and, if necessary, elsewhere in the County. A number of methods could be used to implement the program, including a detailed traffic monitoring and forecasting program, incentives to reduce peak hour trips, specific limits on growth, transportation demand management for commercial uses, and if necessary, the acquisition of development rights where further restrictions on development are needed but would not be legally feasible. Implementation of this measure would mitigate this impact to a less-than-significant level.

***Mitigation Measure 5.4-1(c): Modify LOS Policies***

The County shall modify the LOS policies for this alternative as follows:

**Revised Policy 3.5.1.1:** The County shall adopt a roadway plan consistent with planned land use and shall maintain an operating Level of Service of “E” or better on all roadways, consistent with Objective 3.5.1. ~~In addition, all road segments projected in the roadway plan at the year 2015 to be operating at LOS A, B, or C shall not be allowed to fall below LOS C and all road segments at LOS D shall not fall below LOS D.~~

The table accompanying Policy 3.5.1.6 listing road segments that are allowed to operate at LOS F shall be amended to include the segments projected to operate at LOS F in 2025 as shown in Table 5.4-6.

Implementation of Mitigation Measure 5.4-1(c) would not improve traffic flow, but it would eliminate the identified inconsistencies with applicable LOS policies by revising those policies to match LOS projections. Three of the affected roadway segments would be allowed to operate at an LOS F. However, because this impact relates only to inconsistencies between projected traffic levels and applicable LOS policies, implementation of this measure would reduce this impact to a less-than-significant level.

***Mitigation Measure 5.4-1(d): Amend the Circulation Diagram to Include a Frequent Transit Service on Exclusive Right-of-Way to the El Dorado Hills Business Park***

**New Policy:** The County shall amend the circulation diagram to include a frequent transit service operating on exclusive right-of-way to the El Dorado Hills Business Park from residential communities in El Dorado County and from the City of Folsom.

Implementation of Mitigation Measure 5.4-1(d) would reduce this impact but not to a less-than-significant level. The effectiveness of this transit service in relieving projected LOS problems would be hampered by the low-density development patterns of El Dorado County and Folsom. Further, the implementation of this measure is uncertain because detailed planning, engineering, and funding studies have not been completed. In addition, the service may require approval from Sacramento County, the City of Folsom, Sacramento Regional Transit, and possibly Caltrans. Therefore, this impact would remain significant and unavoidable.

### **Mitigation Measure 5.4-1—Roadway Constrained 6-Lane “Plus” Alternative**

The County shall implement one of the following mitigation measures:

- < Mitigation Measure 5.4-1(a): Amend the Circulation Diagram to Include a New Arterial Roadway from El Dorado Hills Business Park to U.S. 50
- < Mitigation Measure 5.4-1(b): Add New Growth Control Implementation Measure
- < Mitigation Measure 5.4-1(c): Expand List of Roadway Segments Operating at LOS F
- < Mitigation Measure 5.4-1(d): Amend the Circulation Diagram to Include a Frequent Transit Service on Exclusive Right-of-Way to the El Dorado Hills Business Park

These mitigation measures are described below.

#### ***Mitigation Measure 5.4-1(a): Amend the Circulation Diagram to Include a New Arterial Roadway from El Dorado Hills Business Park to U.S. 50***

Please refer to the proposed Mitigation Measure 5.4-1(a) for the No Project Alternative. With construction of the proposed new arterial, the projected LOS inconsistencies on White Rock Road and Latrobe Road would be eliminated, but projected inconsistencies on other segments would remain. Thus, implementation of this measure would reduce this impact, but not to a less-than-significant level. In addition, implementation of this measure cannot be assured for the reasons discussed above for the No Project Alternative. This impact is significant and unavoidable.

#### ***Mitigation Measure 5.4-1(b): Add New Growth Control Implementation Measure***

The County shall add the following growth control implementation measure to avoid potential violations of LOS thresholds. The mitigation measure is embodied in comparative alternative #9 in Chapter 6.

**New Implementation Measure:** The County shall implement a growth control mechanism for all new discretionary and ministerial development (which includes approved development that has not yet been built) that would access Latrobe Road or White Rock Road. This mechanism shall be designed to ensure that the 2025 p.m. peak-hour volumes on El Dorado Hills Boulevard, Latrobe Road, and White Rock Road do not exceed the minimum acceptable LOS thresholds defined in Policies 3.5.1.1, 3.5.1.6, and 3.5.1.6.2 with the circulation diagram improvements assumed in place. As such, the measure should consider a variety of methods that control or limit growth and the resulting traffic

including, but not limited to, the acquisition of development rights, incentives or disincentives not to travel during peak hours on affected roadways, and changes in allowed development intensities. The County shall monitor peak-hour traffic volumes and LOS beyond 2025 and, if necessary, shall implement growth control mechanisms in any part of the county where the LOS thresholds defined in the General Plan policies listed above cannot be maintained.

Implementation of Mitigation Measure 5.4-1(b) would reduce this impact to a less-than-significant level. As discussed under the No Project Alternative, this measure would require the County to implement a growth control program in areas where LOS standards would otherwise not be met. Implementation of this measure would be more difficult for this alternative because limits on U.S. 50 widening that are part of this alternative will result in additional inconsistencies with LOS standards for certain segments of that highway. This may require greater reliance on acquisition of development rights to reduce traffic to the necessary levels. Full implementation of this measure, if feasible, would mitigate this impact to a less-than-significant level.

**Mitigation Measure 5.4-1(c): *Modify LOS Policies: Implement Mitigation Measure 5.4-1(c) in the No Project Alternative to modify segments allowed to operate at cost.***

Implementation of Mitigation Measure 5.4-1(c) would not improve traffic flow, but it would eliminate the identified inconsistencies with applicable LOS policies by revising those policies to match LOS projections. Six of the affected roadway segments would be allowed to operate at LOS F. However, because this impact relates only to inconsistencies between projected traffic levels and applicable LOS policies, implementation of this measure would reduce this impact to a less-than-significant level.

**Mitigation Measure 5.4-1(d): *Amend the Circulation Diagram to Include a Frequent Transit Service on Exclusive Right-of-Way to the El Dorado Hills Business Park***

Please refer to proposed Mitigation Measure 5.4-1(d) for the No Project Alternative. With implementation of this mitigation measure would reduce this impact, but the feasibility and effectiveness of a new transit service is uncertain as discussed under the No Project Alternative. Therefore, this impact would remain significant and unavoidable.

### **Mitigation Measure 5.4-1—Environmentally Constrained Alternative**

The County shall implement one of the following mitigation measures:

- < Mitigation Measure 5.4-1(a): Amend the Circulation Diagram to Include a New Arterial Roadway from El Dorado Hills Business Park to U.S. 50
- < Mitigation Measure 5.4-1(b): Add New Growth Control Implementation Measure
- < Mitigation Measure 5.4-1(c): Modify LOS Policies
- < Mitigation Measure 5.4-1(d): Amend the Circulation Diagram to Include a Frequent Transit Service on Exclusive Right-of-Way to the El Dorado Hills Business Park

These mitigation measures are described below.

#### **Mitigation Measure 5.4-1(a): *Amend the Circulation Diagram to Include a New Arterial Roadway from El Dorado Hills Business Park to U.S. 50***

Please refer to Mitigation Measure 5.4-1(a) for the No Project Alternative. With construction of the proposed arterial, the projected LOS inconsistencies on White Rock Road and Latrobe Road would be eliminated, reducing this impact to a less-than-significant level. However, implementation of this measure cannot be assured for the reasons discussed above for the No Project Alternative. Therefore, this impact would remain significant and unavoidable.

#### **Mitigation Measure 5.4-1(b): *Implement Growth Control Mechanism for New Development Accessing Latrobe Road or White Rock Road***

Please refer to the proposed Mitigation Measure 5.4-1(b) for the Roadway Constrained 6-Lane “Plus” Alternative above. This alternative would result in more growth than the Roadway Constrained 6-Lane “Plus” Alternative, but would also include additional roadway improvements resulting in fewer LOS inconsistencies. Implementation of the growth control program called for by this mitigation measure would reduce these impacts to a less-than-significant level.

#### **Mitigation Measure 5.4-1(c): *Modify LOS Policies***

Please refer to the proposed Mitigation Measure 5.4-1(c) for the No Project Alternative above. Implementation of this mitigation measure would not improve traffic flow, but it would eliminate the identified inconsistencies with applicable LOS policies by revising those policies to match LOS projections. Three of the affected roadway segments would be allowed to operate at LOS F. However, because this impact relates only to inconsistencies between projected traffic

levels and applicable LOS policies, implementation of this measure would reduce this impact to a less-than-significant level.

**Mitigation Measure 5.4-1(d): Amend the Circulation Diagram to Include a Frequent Transit Service on Exclusive Right-of-Way to the El Dorado Hills Business Park**

Please refer to the proposed Mitigation Measure 5.4-1(d) for the No Project Alternative. With implementation of this mitigation measure, impacts would be reduced, but the feasibility and effectiveness of a new transit service is uncertain as discussed under the No Project Alternative. Therefore, this impact would remain significant and unavoidable.

**Mitigation Measure 5.4-1—1996 General Plan Alternative**

The County shall implement one of the following mitigation measures:

- ▶ Mitigation Measure 5.4-1(a): Amend the Circulation Diagram to Include a New Arterial Roadway from El Dorado Hills Business Park to U.S. 50
- ▶ Mitigation Measure 5.4-1(b): Add New Growth Control Implementation Measure
- ▶ Mitigation Measure 5.4-1(c): Modify LOS Policies
- ▶ Mitigation Measure 5.4-1(d): Amend the Circulation Diagram to Include a Frequent Transit Service on Exclusive Right-of-Way to the El Dorado Hills Business Park

These mitigation measures are described below.

**Mitigation Measure 5.4-1(a): Amend the Circulation Diagram to Include a New Arterial Roadway from El Dorado Hills Business Park to U.S. 50**

Please refer to the proposed Mitigation Measure 5.4-1(a) for the No Project Alternative. With construction of the proposed arterial, the projected LOS inconsistencies on White Rock Road and Latrobe Road would be eliminated, reducing this impact to a less-than-significant level. However, implementation of this measure cannot be assured for the reasons discussed above for the No Project Alternative.

**Mitigation Measure 5.4-1(b): Implement Growth Control Mechanism for New Development Accessing Latrobe Road or White Rock Road**

Please refer to the proposed Mitigation Measure 5.4-1(b) for the No Project Alternative. This alternative would result in the most traffic, but also includes the greatest amount of roadway improvements. As with the No Project and Environmentally Constrained alternatives,

projected LOS deficiencies would be limited to El Dorado Hills Boulevard, Latrobe Road and White Rock Road. Implementation of the targeted growth control program called for in this mitigation measure would reduce this impact to a less-than-significant level.

***Mitigation Measure 5.4-1(c): Modify LOS Policies***

Please refer to the proposed Mitigation Measure 5.4-1(c) under the No Project Alternative. Implementation of this mitigation measure would not improve traffic flow, but it would eliminate the identified inconsistencies with applicable LOS policies by revising those policies to match LOS projections. Three of the affected roadway segments would be allowed to operate at LOS F. However, because this impact relates only to inconsistencies between projected traffic levels and applicable LOS policies, implementation of this measure would reduce this impact to a less-than-significant level.

***Mitigation Measure 5.4-1(d): Amend the Circulation Diagram to Include a Frequent Transit Service on Exclusive Right-of-Way to the El Dorado Hills Business Park***

Please refer to the proposed Mitigation Measure 5.4-1(d) under the No Project Alternative. With implementation of this mitigation measure, impacts would be reduced, but the feasibility and effectiveness of a new transit service is uncertain as discussed under the No Project Alternative. Therefore, this impact would remain significant and unavoidable.

Impact  
**5.4-2**

**Increase in Daily and Peak Hour Traffic.** The project alternatives would increase daily and peak hour traffic volumes substantially over existing levels. This impact is considered **significant**.

Impact	Significance Before Mitigation*							
	Alt. #1 (No Project)		Alt. #2 (Roadway Constrained 6-Lane "Plus")		Alt. #3 (Environmentally Constrained)		Alt. #4 (1996 General Plan)	
	2025	Buildout	2025	Buildout	2025	Buildout	2025	Buildout
5.4-2: Increase in Daily and Peak Hour Traffic	S <sub>4</sub>	S <sub>4</sub>	S <sub>3</sub>	S <sub>3</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>2</sub>	S <sub>1</sub>

Mitigation	Significance After Mitigation*							
	Alt. #1 (No Project)		Alt. #2 (Roadway Constrained 6-Lane "Plus")		Alt. #3 (Environmentally Constrained)		Alt. #4 (1996 General Plan)	
	2025	Buildout	2025	Buildout	2025	Buildout	2025	Buildout
5.4-2: Implement Mitigation Measure 5.4-1(a), 5.4-1(b), 5.4-1(c), or 5.4-1(d)	SU <sub>4</sub>	SU <sub>4</sub>	SU <sub>3</sub>	SU <sub>3</sub>	SU <sub>1</sub>	SU <sub>2</sub>	SU <sub>2</sub>	SU <sub>1</sub>
* Notes: LS = Less than Significant; N/A= Not Applicable; P = Potentially Significant; S = Significant; SU = Significant and Unavoidable. Significant impacts for the 2025 scenario and the buildout scenario are ranked against each other by alternative, from 1 (Worst Impact) to 4 (Least Impact). Where the impact under two different alternatives during the same time frame would be roughly equal in severity, the numerical ranking is the same.								

**No Project Alternative (Alternative #1)**

***Relevant Goals/Policies—No Project Alternative***

Although each General Plan alternative contains policies that establish minimum acceptable LOS thresholds, these standards differ for some roadway segments under the different alternatives. To provide a basis for uniformly analyzing increases in traffic and corresponding declines in traffic LOS that would occur under each alternative, this analysis assumes a significant impact if development allowed under the General Plan alternative would result in peak hour LOS D or worse conditions.

***No Project Alternative (2025)—Impact Discussion***

LOS D or worse conditions are projected to occur for the 48 roadway segments listed in Table 5.4-7 under the No Project Alternative. During at least one peak hour, four of these segments would operate at LOS E and three would operate at LOS F. For most segments, the existing LOS would degrade from an acceptable level (i.e., LOS A, B, or C) to LOS D, E, or F under 2025 conditions. In some cases (as noted by an asterisk in the table), added traffic would exacerbate traffic on a segment that is currently operating below LOS C. As discussed in the analysis of Impact 5.4-1, applicable transit-related policies would not substantially reduce LOS impacts given the density of projected development. This impact is considered significant.

***No Project Alternative (Buildout)—Impact Discussion***

Please refer to the No Project Alternative (Buildout)-Impact Discussion for Impact 5.4-1.

## **Roadway Constrained 6-Lane “Plus” Alternative (Alternative #2)**

### ***Relevant Goals/Policies—Roadway Constrained 6-Lane “Plus” Alternative***

For the relevant policies of the Roadway Constrained 6-Lane “Plus” Alternative, please refer to the policies listed above under the No Project Alternative.

### ***Roadway Constrained 6-Lane “Plus” Alternative (2025)—Impact Discussion***

LOS D or worse conditions are projected to occur for the 69 roadway segments listed in Table 5.4-7 under the Roadway Constrained 6-Lane “Plus” Alternative. During at least one peak hour, three of these segments would operate at LOS E and nine would operate at LOS F. For most segments, the existing LOS would degrade from an acceptable level (i.e., LOS A, B, or C) to LOS D, E, or F under 2025 conditions. In some cases (as noted by an asterisk in the table), an unacceptable existing LOS would be exacerbated. This impact is considered significant.

### ***Roadway Constrained 6-Lane “Plus” Alternative (Buildout)—Impact Discussion***

Please refer to the Roadway Constrained 6-Lane “Plus” Alternative (Buildout)-Impact Discussion for Impact 5.4-1.

## **Environmentally Constrained Alternative (Alternative #3)**

### ***Relevant Goals/Policies—Environmentally Constrained Alternative***

For the relevant policies of the Environmentally Constrained Alternative, please refer to the policies listed above under the No Project Alternative.

### ***Environmentally Constrained Alternative (2025)—Impact Discussion***

LOS D or worse conditions are projected to occur for the 85 roadway segments listed in Table 5.4-7 under the Environmentally Constrained Alternative. During at least one peak hour, 12 of these segments would operate at LOS E and four would operate at LOS F. For most segments, the existing LOS would degrade from an acceptable level (i.e., LOS A, B, or C) to LOS D, E, or F under 2025 conditions. In some cases (as noted by an asterisk in the table), an unacceptable existing LOS would be exacerbated. This impact is considered significant.

### ***Environmentally Constrained Alternative (Buildout)—Impact Discussion***

Please refer to the Environmentally Constrained Alternative (Buildout)-Impact Discussion for Impact 5.4-1.

### **1996 General Plan Alternative (Alternative #4)**

#### ***Relevant Goals/Policies—1996 General Plan Alternative***

For the relevant policies of the 1996 General Plan Alternative, please refer to the policies listed above under the No Project Alternative.

### ***1996 General Plan Alternative (2025)—Impact Discussion***

LOS D or worse conditions are projected to occur for the 67 roadway segments listed in Table 5.4-7 under the 1996 General Plan Alternative. During at least one peak hour, seven of these segments would operate at LOS E and five would operate at LOS F. For most segments, the existing LOS would degrade from an acceptable level (i.e., LOS A, B, or C) to LOS D, E, or F under 2025 conditions. In some cases (as noted by an asterisk in the table), an unacceptable existing LOS would be exacerbated. This impact is considered significant.

### ***1996 General Plan Alternative (Buildout)—Impact Discussion***

Please refer to the 1996 General Plan Alternative (Buildout)-Impact Discussion for Impact 5.4-1.

### **Mitigation Measure 5.4-2—No Project Alternative**

The County shall implement one of the following mitigation measures:

#### ***Mitigation Measure 5.4-2: Implement No Project Alternative Mitigation Measure 5.4-1(a), 5.4-1(b), 5.4-1(c), or 5.4-1(d)***

Implementation of one of these mitigation measure options would reduce this impact if it is implemented. However, the mitigation would not eliminate the increase in traffic or provide LOS C operation and uncertainty exists associated with implementation of some of the options as discussed under Mitigation Measure 5.4-1. Therefore, this impact would remain significant and unavoidable.

Another mitigation measure that the County considered but rejected was to modify the LOS policies to establish LOS C as the minimum acceptable threshold and to modify the circulation diagram to reflect a roadway system that would provide LOS C operations under 2025 conditions.

The main reasons for rejection of this mitigation measure were related to the potential physical environmental impacts and feasibility of constructing new roadways and widening existing roadways beyond the limits proposed in the circulation diagram. The required expansion to provide LOS C operations would result in adverse impacts on the physical environment including the disturbance or loss of habitat, as well as an increase in impervious surfaces. The feasibility of constructing the system is also unknown due to potential cost constraints and physical right-of-way constraints. Also, since LOS is essentially a measure of driver comfort and convenience, the County desires to maintain a balance between providing convenient roadway travel for residents and visitors during peak-hour conditions with the need to minimize impacts on the physical environment and maintain a rural quality of life and aesthetic “country” roadways wherever possible. For all of these same reasons, the County rejected an LOS C threshold for operations beyond 2025 conditions (to accommodate buildout development levels) as well because this requires even greater roadway expansion.

#### **Mitigation Measure 5.4-2—Roadway Constrained 6-Lane “Plus” Alternative**

The County shall implement one of the following mitigation measures:

#### **Mitigation Measure 5.4-2: *Implement Roadway Constrained 6-Lane “Plus” Alternative Mitigation Measure 5.4-1(a), 5.4-1(b), 5.4-1(c), or 5.4-1(d)***

Implementation of one of these mitigation measure options would reduce this impact if it is implemented. However, the mitigation would not eliminate the increase in traffic or provide LOS C operation and uncertainty exists associated with implementation of some of the options as discussed under Mitigation Measure 5.4-1. Therefore, this impact would remain significant and unavoidable.

Similar to the No Project Alternative, the County considered but rejected a measure to modify the LOS policies to establish LOS C as the minimum acceptable threshold and to modify the circulation diagram to reflect a roadway system that would provide LOS C operations under 2025 conditions. In addition to the reasons cited above for the No Project Alternative, the County considered improving the roadway system to provide LOS C operations to be inconsistent with the basic theme of this alternative, which is to minimize the size of the roadway system.

### **Mitigation Measure 5.4-2—Environmentally Constrained Alternative**

The County shall implement one of the following mitigation measures:

#### ***Mitigation Measure 5.4-2: Implement Environmentally Constrained Alternative Mitigation Measure 5.4-1(a), 5.4-1(b), 5.4-1(c), or 5.4-1(d)***

Implementation of one of these mitigation measure options would reduce this impact. However, the mitigation would not eliminate the increase in traffic or provide LOS C operation and uncertainty exists associated with implementation of some of the options as discussed under Mitigation Measures 5.4-1 (a through d). Therefore, this impact would remain significant and unavoidable.

Similar to the No Project Alternative, the County considered but rejected a measure to modify the LOS policies to establish LOS C as the minimum acceptable threshold and to modify the circulation diagram to reflect a roadway system that would provide LOS C operations under 2025 conditions. Rejection was based on the same reasons cited above for the No Project Alternative.

### **Mitigation Measure 5.4-2—1996 General Plan Alternative**

The County shall implement the following mitigation measure:

#### ***Mitigation Measure 5.4-2: Implement 1996 General Plan Alternative Mitigation Measure 5.4-1(a), 5.4-1(b), 5.4-1(c), or 5.4-1(d)***

Implementation of one of these mitigation measure options would reduce this impact if it is implemented. However, the mitigation would not eliminate the increase in traffic or provide LOS C operation and uncertainty exists associated with implementation of some of the options as discussed under Mitigation Measure 5.4-1. Therefore, this impact would remain significant and unavoidable.

Similar to the No Project Alternative, the County considered but rejected a measure to modify the LOS policies to establish LOS C as the minimum acceptable threshold and to modify the circulation diagram to reflect a roadway system that would provide LOS C operations under 2025 conditions. Rejection was based on the same reasons cited above for the No Project Alternative.

Impact  
5.4-3

**Short-Term Unacceptable LOS Conditions Related to Generation of New Traffic in Advance of Transportation Improvements.** All of the General Plan alternatives contain concurrency policies that preclude certain development from proceeding until needed roadway improvements have been made or financed. However, these policies may not apply to all new development. In addition, a portion of the transportation improvements called for in the proposed circulation diagrams are needed to address existing LOS deficiencies caused by existing or approved development, and these deficiencies may be exacerbated by increased traffic generated from development inside and outside the county that is not subject to the concurrency requirements. The County has not yet identified a funding mechanism to provide for these improvements. This impact is considered **significant**. At 2025 the severity of this impact would be greatest under the Environmentally Constrained Alternative, followed by the 1996 General Plan, Roadway Constrained 6-Lane “Plus,” and No Project alternatives. At buildout the severity of the impact would be greatest under the 1996 General Plan Alternative, followed by the Environmentally Constrained, Roadway Constrained 6-Lane “Plus,” and No Project alternatives. Impact significance before and after mitigation is shown in the table below.

Impact	Significance Before Mitigation*							
	Alt. #1 (No Project)		Alt. #2 (Roadway Constrained 6-Lane “Plus”)		Alt. #3 (Environmentally Constrained)		Alt. #4 (1996 General Plan)	
	2025	Buildout	2025	Buildout	2025	Buildout	2025	Buildout
5.4-3: Short-term Unacceptable LOS Conditions Related to Generation of New Traffic in Advance of Transportation Improvements	S <sub>4</sub>	S <sub>4</sub>	S <sub>3</sub>	S <sub>3</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>2</sub>	S <sub>1</sub>

Mitigation	Significance After Mitigation*							
	Alt. #1 (No Project)		Alt. #2 (Roadway Constrained 6-Lane "Plus")		Alt. #3 (Environmentally Constrained)		Alt. #4 (1996 General Plan)	
	2025	Buildout	2025	Buildout	2025	Buildout	2025	Buildout
5.4-3(a): Modify Concurrency and Tax Revenue Policies and Transportation Financing Implementation Measures and 5.4-3(b): Implement Mitigation Measure 5.1-3(a).	SU <sub>4</sub>	SU <sub>4</sub>	SU <sub>3</sub>	SU <sub>3</sub>	SU <sub>1</sub>	SU <sub>2</sub>	SU <sub>2</sub>	SU <sub>1</sub>
* Notes: LS = Less than Significant; N/A= Not Applicable; P = Potentially Significant; S = Significant; SU = Significant and Unavoidable. Significant impacts for the 2025 scenario and the buildout scenario are ranked against each other by alternative, from 1 (Worst Impact) to 4 (Least Impact). Where the impact under two different alternatives during the same time frame would be roughly equal in severity, the numerical ranking is the same.								

**No Project Alternative (Alternative #1)**

***Relevant Goals/Policies—No Project Alternative***

The relevant policies included in the 1996 General Plan that are applicable to the No Project Alternative include Policies 3.2.1.1, 3.2.1.4, 3.2.1.5, 3.2.2.4, 3.2.2.5.

***No Project Alternative (2025)—Impact Discussion***

Policy 3.2.1.4 requires that development projects be denied unless roadway improvements are to be provided concurrent with development. In addition, Policy 3.5.1.6.1 requires that development projects of five or more units or parcels be denied if they would cause or worsen LOS F conditions, which effectively imposes a strict concurrency requirement for such projects. This requirement would reduce temporary traffic impacts from new development because projects subject to the requirement would not be approved unless the improvements needed to accommodate that development are available. However, more than 11,000 residential units in El Dorado County have already been approved under DAs according to the *El Dorado County Land Use Forecasts for Draft General Plan* (EPS 2002). Although these approvals required a number of roadway improvements to be made, existing LOS F conditions on county roadways are an indication that concurrency was not required. For example, building permits are continuing to be granted in the El Dorado Hills area despite existing LOS F conditions on U.S. 50 between El Dorado Hills Boulevard and the Sacramento county line. In addition, the remaining residential development allowed under this alternative would be approved ministerially and thus would not be subject to the concurrency policies. Thus, development

allowed under this alternative is proceeding before all roadway improvements needed to offset the traffic impacts from that development are constructed.

In addition, previously approved development has resulted in existing deficiencies in traffic LOS. These deficiencies could be exacerbated by increased traffic originating outside of the County that is generated by recreational or other destinations (e.g., the proposed Shingle Springs Rancheria Casino/Hotel or the Lake Tahoe Basin). The County has not identified the funding mechanism that will pay for the improvements needed to correct existing deficiencies. While it is possible that existing El Dorado County traffic impact fee programs could be revised to increase developer-paid traffic impact fees to more accurately reflect the costs of improvements needed to serve new development, the County would remain responsible for the costs of correcting existing deficiencies.

The problem of correcting existing deficiencies is compounded by the fact that in some cases, the existing and future capacity improvements may be interdependent. For example, the minimum improvement upgrade for existing LOS deficiency may also provide capacity for new development. In these cases, the cost of the improvement needs to be shared by existing development as well as new development. Obtaining the funding for future capacity improvements may be difficult given applicable concurrency policies and the cost of those improvements. The County's existing traffic impact fee programs have a shortfall of about \$261 million and no funding mechanisms exist to provide up-front funding of roadway improvements to comply with concurrency policies.

Under Policies 3.2.2.4 and 3.2.2.5, the County's fee programs must include the full cost responsibility of new development, and the County is prohibited from using County tax revenues to pay for improvements needed to accommodate new development. This has eliminated the Board of Supervisors' authority to reduce impact fee levels for economic or other reasons. If fee levels limit the extent of development in the county, then the population and growth projections that are the basis for the transportation improvements included in the circulation diagram and associated fee programs may not be realized. Thus, interdependent capacity improvements needed to remedy existing deficiencies could be delayed or precluded. Therefore, this impact is considered significant.

#### ***No Project Alternative (Buildout)—Impact Discussion***

The conditions described above under No Project Alternative (2025)—Impact Discussion would be exacerbated by the additional development that could occur beyond 2025 conditions. This impact is considered significant.

## **Roadway Constrained 6-Lane “Plus” Alternative (Alternative #2)**

### ***Relevant Goals/Policies—Roadway Constrained 6-Lane “Plus” Alternative***

The relevant policies applicable to the Roadway Constrained 6-Lane “Plus” Alternative are Policies TC-1g, TC-1h, and TC-1j.

### ***Roadway Constrained 6-Lane “Plus” Alternative (2025)—Impact Discussion***

Policy TC-1j requires that development projects be denied unless roadway improvements are to be provided concurrent with development. This requirement would reduce temporary traffic impacts from new development because projects subject to the requirement would not be approved unless the improvements needed to accommodate that development are available. However, these policies do not apply to ministerial development. Please refer to No Project Alternative (2025)—Impact Discussion above.

Under Policies TC-1g and TC-1h, the County’s fee programs must include the full cost responsibility of new development, and the County is prohibited from using County tax revenues to pay for improvements needed to accommodate new development. This has eliminated the Board of Supervisors’ authority to reduce impact fee levels for economic or other reasons. If fee levels limit the extent of development in the county, then the population and growth projections that are the basis for the transportation improvements included in the circulation diagram and associated fee programs may not be realized. Thus, interdependent capacity improvements needed to remedy existing deficiencies could be delayed or precluded. Therefore, this impact is considered significant.

### ***Roadway Constrained 6-Lane “Plus” Alternative (Buildout)—Impact Discussion***

The conditions described above under Roadway Constrained 6-Lane “Plus” Alternative (2025)—Impact Discussion would be exacerbated by the additional development that could occur beyond 2025 conditions. This impact is considered significant.

## **Environmentally Constrained Alternative (Alternative #3)**

### ***Relevant Goals/Policies—Environmentally Constrained Alternative***

The relevant policies that are applicable to the Environmentally Constrained Alternative are Policies TC-1g, TC-1h, and TC-1i.

### ***Environmentally Constrained Alternative (2025)—Impact Discussion***

This impact is similar to the Roadway Constrained 6-Lane “Plus” Alternative but would be less severe. Policy TC-1i of the Environmentally Constrained Alternative includes modified language to allow a potential lag to occur between the issuance of use or occupancy permits and required roadway improvements as long as roadway improvements necessary to accommodate “existing plus project” traffic are programmed (i.e., fully funded). This lag would reduce the potential effect that immediate concurrency has on funding feasibility, but it would not eliminate the other components of the impact related to the uncertainty of generating sufficient funding to improve existing deficiencies.

Another potential difference between this alternative and the Roadway Constrained 6-Lane “Plus” Alternative is that the Environmentally Constrained Alternative would allow new subdivisions to be created, which would be subject to concurrency requirements. This may result in greater improvements to the county’s roadway system, but would also cause greater levels of traffic and a greater level of improvement need. This impact is considered significant.

### ***Environmentally Constrained Alternative (Buildout)—Impact Discussion***

The conditions described above under Environmentally Constrained Alternative (2025)—Impact Discussion would be exacerbated by the additional development that could occur beyond 2025 conditions. This impact is considered significant.

### **1996 General Plan Alternative (Alternative #4)**

#### ***Relevant Goals/Policies—1996 General Plan Alternative***

The relevant policies included in the 1996 General Plan that are applicable to the 1996 General Plan Alternative are Policies 3.2.1.1, 3.2.1.4, 3.2.1.5, 3.2.2.4, and 3.2.2.5.

#### ***1996 General Plan Alternative (2025)—Impact Discussion***

Please refer to No Project Alternative (2025)—Impact Discussion above. One potential difference between this alternative and the No Project Alternative is that the 1996 General Plan Alternative would allow new subdivisions to be created, which would be subject to concurrency requirements. This may result in greater improvements to the County’s roadway system, but would also cause greater levels of traffic and a greater level of improvement need.

***1996 General Plan Alternative (Buildout)—Impact Discussion***

Please refer to No Project Alternative (Buildout)—Impact Discussion above. This impact is considered significant.

**Mitigation Measure 5.4-3—No Project Alternative**

The County shall implement the following mitigation measures:

- < Mitigation Measure 5.4-3(a): Modify Concurrency and Tax Revenue Policies and Transportation Financing Implementation Measures; and
- < Mitigation Measure 5.4-3(b): Implement Mitigation Measure 5.1-3(a)

These potential mitigation measures are described below.

***Mitigation Measure 5.4-3(a): Modify Concurrency and Tax Revenue Policies and Transportation Financing Implementation Measures***

The County shall modify Policies 3.2.1.4 and 3.2.2.5 as noted below and add Implementation Measures TC-B from the Environmentally Constrained Alternative to the No Project Alternative. The County shall also modify Implementation Measure TC-B as noted below.

**Revised Policy 3.2.1.4:** Where no improvement or other acceptable mitigation measures are proposed to alleviate project-induced situations within 5 years of the issuance of the use and occupancy permits ~~concurrent with development~~, land development projects shall be denied.

**Revised Policy 3.2.2.5:** County tax revenues ~~shall not~~ may be used ~~in any way~~ to pay for building road capacity improvements to offset traffic impacts from new development projects. ~~Exceptions are allowed if County voters first give their approval.~~

**New Implementation Measure:** Revise and adopt traffic impact fee program(s) for unincorporated areas of the county and adopt additional funding mechanisms necessary to ensure that improvements contained in the fee programs are fully funded and capable of being implemented concurrently with new development as defined by Policy 3.2.1.4. The traffic fees should be designed to achieve the adopted level of service standards and preserve the integrity of the circulation system.

Implementation of Mitigation Measure 5.4-3(a) would reduce this impact, but the feasibility of adopting a funding mechanism (i.e., Mello-Roos districts, gas taxes, parcel taxes, etc.) to provide sufficient funding to cover existing deficiencies and concurrency is unknown. Therefore, this impact would remain significant and unavoidable.

***Mitigation Measure 5.4-3(b): Implement Mitigation Measure 5.1-3(a)***

The County shall implement Mitigation Measure 5.1-3(a) described in Section 5.1, Land Use and Housing. With implementation of this mitigation measure, impacts would be reduced because the measure would allow the County to apply traffic concurrency policies to ministerial development projects. This would have the effect of discouraging development on vacant parcels in areas without sufficient capacity and encouraging development where sufficient roadway capacity exists to accommodate it consistent with the LOS policy standards. However, this measure would address only ministerial development. Because, as discussed above, it is unknown whether and when funding mechanisms for all necessary road improvements will be adopted, application of concurrency policies under this measure could delay development in some areas indefinitely. The feasibility of applying these requirements to the development of a single family residence on an existing vacant parcel is uncertain. Therefore, this impact would remain significant and unavoidable.

A potential secondary impact of this mitigation would be that development will be encouraged to occur in more remote areas where reserve roadway capacity exists. This result could cause an increase in trip lengths and vehicle miles of travel (VMT), which may cause higher air pollution emissions.

**Mitigation Measure 5.4-3—Roadway Constrained 6-Lane “Plus” Alternative**

The County shall implement the following mitigation measures:

- < Mitigation Measure 5.4-3(a): Modify Concurrency and Tax Revenue Policies and Modify Transportation Financing Implementation Measures; and
- < Mitigation Measure 5.4-3(b): Implement Mitigation Measure 5.1-4(a)

These potential mitigation measures are described below.

**Mitigation Measure 5.4-3(a): *Modify Concurrency and Tax Revenue Policies and Modify Transportation Financing Implementation Measures***

The County shall modify Policy TC-1h as noted below and modify Implementation Measure TC-B as noted below.

**Revised Policy TC-1h:** County tax revenues ~~shall not~~ may be used ~~in any way~~ to pay for building road capacity improvements to offset traffic impacts from new development projects. ~~Exceptions are allowed if County voters first give their approval.~~

**Revised Implementation Measure TC-B:** The County shall revise and adopt traffic impact fee program(s) for unincorporated areas of the county and adopt additional funding mechanisms necessary to ensure that improvements contained in the fee programs are fully funded and capable of being implemented concurrently with new development as defined by Policy TC-1j. The traffic fees should be designed to achieve the adopted level of service standards and preserve the integrity of the circulation system.

Implementation of Mitigation Measure 5.4-3(a) would reduce this impact, but the feasibility of adopting a funding mechanism (i.e., Mello-Roos districts, gas taxes, parcel taxes, etc.) to provide sufficient funding to cover existing deficiencies and concurrency is unknown. Therefore, this impact would remain significant and unavoidable.

**Mitigation Measure 5.4-3(b): *Implement Mitigation Measure 5.1-3(a)***

Please refer to the proposed Mitigation Measure 5.4-3(b) for the No Project Alternative. With implementation of this mitigation measure, impacts could be reduced because the measure would allow the County to apply traffic concurrency policies to ministerial development projects, encouraging new development where sufficient roadway capacity exists to accommodate it under the General Plan LOS policy thresholds. However, as discussed under the No Project Alternative, the feasibility of applying traffic improvement concurrency requirements to the development of single-family residences on existing vacant parcels is uncertain. Therefore, this impact would remain significant and unavoidable.

**Mitigation Measure 5.4-3—Environmentally Constrained Alternative**

Please refer to the proposed Mitigation Measure 5.4-3(a) for the Roadway Constrained 6-Lane “Plus” Alternative and Mitigation Measure 5.4-3(b) for the No Project Alternative above. With implementation of one of these mitigation measures, impacts would be reduced, but not to a less-than-significant level.

**Mitigation Measure 5.4-3—1996 General Plan Alternative**

Please refer to the proposed mitigation measures for the No Project Alternative above. With implementation of one of these mitigation measures, impacts would be reduced, but not to a less-than-significant level.

Impact  
**5.4-4**

**Insufficient Transit Capacity.** The existing commuter bus service has capacity problems because of insufficient park-and-ride facilities. Population and employment growth under the equal-weight alternatives would increase demand for transit service and exacerbate this existing transit capacity problem. This impact is considered **significant**. The severity of this impact would be greatest under the 1996 General Plan Alternative, followed by the Environmentally Constrained, Roadway Constrained 6-Lane “Plus,” and No Project alternatives. Impact significance before and after mitigation is shown in the table below.

Impact	Significance Before Mitigation*							
	Alt. #1 (No Project)		Alt. #2 (Roadway Constrained 6-Lane “Plus”)		Alt. #3 (Environmentally Constrained)		Alt. #4 (1996 General Plan)	
	2025	Buildout	2025	Buildout	2025	Buildout	2025	Buildout
5.4-4: Insufficient Transit Capacity	S <sub>4</sub>	S <sub>4</sub>	S <sub>3</sub>	S <sub>3</sub>	S <sub>2</sub>	S <sub>2</sub>	S <sub>1</sub>	S <sub>1</sub>
Mitigation	Significance After Mitigation*							
	Alt. #1 (No Project)		Alt. #2 (Roadway Constrained 6-Lane “Plus”)		Alt. #3 (Environmentally Constrained)		Alt. #4 (1996 General Plan)	
	2025	Buildout	2025	Buildout	2025	Buildout	2025	Buildout
5.4-4: Develop Funding Mechanism for Park-and-Ride Lots	SU <sub>4</sub>	SU <sub>4</sub>	SU <sub>3</sub>	SU <sub>3</sub>	SU <sub>2</sub>	SU <sub>2</sub>	SU <sub>1</sub>	SU <sub>1</sub>
* Notes: LS = Less than Significant; N/A= Not Applicable; P = Potentially Significant; S = Significant; SU = Significant and Unavoidable. Significant impacts for the 2025 scenario and the buildout scenario are ranked against each other by alternative, from 1 (Worst Impact) to 4 (Least Impact). Where the impact under two different alternatives during the same time frame would be roughly equal in severity, the numerical ranking is the same.								

## **No Project Alternative (Alternative #1)**

### ***Relevant Goals/Policies—No Project Alternative***

No policies are applicable.

### ***No Project Alternative (2025)—Impact Discussion***

As noted under Existing Conditions above, the commuter bus service has existing capacity problems because of insufficient spaces at park-and-ride lots. Currently, about 630 park-and-ride spaces are located along the U.S. 50 corridor served by the commuter buses. This equates to about 5.2 parking spaces per 1,000 residents. Under the No Project Alternative, a total of 910 park-and-ride spaces would be required to maintain the current park-and-ride lot space ratio per 1,000 residents. Because of the existing capacity problems, the current ratio may not be sufficient and more spaces could be required to adequately serve future transit demand. The No Project Alternative does not contain specific actions that require or guarantee the construction of new park-and-ride spaces to overcome existing capacity problems or to provide for new population growth. This impact is considered significant.

### ***No Project Alternative (Buildout)—Impact Discussion***

A total of 1,010 park-and-ride spaces could be required to maintain the current park-and-ride lot space ratio per 1,000 residents under the buildout population projection for the No Project Alternative. This impact is considered significant.

## **Roadway Constrained 6-Lane “Plus” Alternative (Alternative #2)**

### ***Relevant Goals/Policies— Roadway Constrained 6-Lane “Plus” Alternative***

No policies are applicable.

### ***Roadway Constrained 6-Lane “Plus” Alternative (2025)—Impact Discussion***

This impact would be similar to that described for the No Project Alternative, but with a higher number of park-and-ride lot spaces. A total of 970 park-and-ride spaces would be required to maintain the current park-and-ride lot space ratio per 1,000 residents. This impact is considered significant.

***Roadway Constrained 6-Lane “Plus” Alternative (Buildout)—Impact Discussion***

A total of 1,170 park-and-ride spaces could be required to maintain the current park-and-ride lot space ratio per 1,000 residents under the buildout population projection for the Roadway Constrained 6-Lane “Plus” Alternative. This impact is considered significant.

**Environmentally Constrained Alternative (Alternative #3)**

***Relevant Goals/Policies— Environmentally Constrained Alternative***

No policies are applicable.

***Environmentally Constrained Alternative (2025)—Impact Discussion***

This impact would be similar to that described for the No Project Alternative, but with a higher number of park-and-ride lot spaces. A total of 1,050 park-and-ride spaces would be required to maintain the current park-and-ride lot space ratio per 1,000 residents. This impact is considered significant.

***Environmentally Constrained Alternative (Buildout)—Impact Discussion***

A total of 1,350 park-and-ride spaces could be required to maintain the current park-and-ride lot space ratio per 1,000 residents under the buildout population projection for the Environmentally Constrained Alternative. This impact is considered significant.

**1996 General Plan Alternative (Alternative #4)**

***Relevant Goals/Policies—1996 General Plan Alternative***

No policies are applicable.

***1996 General Plan Alternative (2025)—Impact Discussion***

This impact would be similar to that described for the No Project Alternative, but with a higher number of park-and-ride lot spaces. A total of 1,050 park-and-ride spaces would be required to maintain the current park-and-ride lot space ratio per 1,000 residents. This impact is considered significant.

### ***1996 General Plan Alternative (Buildout)—Impact Discussion***

A total of 1,650 park-and-ride spaces could be required to maintain the current park-and-ride lot space ratio per 1,000 residents under the buildout population projection for the 1996 General Plan Alternative. This impact is considered significant.

#### **Mitigation Measure 5.4-4: Develop Funding Mechanism for Park-and-Ride Lots**

This mitigation measure is described below.

#### ***Mitigation Measure 5.4-4—No Project Alternative***

The County shall replace Policy 3.9.1.3.

**New Policy 3.9.1.3:** The County shall develop a funding mechanism that requires new development to pay for additional or expanded park-and-ride lots identified by transit providers in the County or the California Department of Transportation. The County shall also work with transit providers in the County and other agencies to determine the need for additional or expanded park-and-ride lots, identify additional sites for such lots, and to acquire necessary rights-of-way for them.

With implementation of this mitigation measure, impacts would be reduced to a less-than-significant level, but the feasibility of adopting a funding mechanism to provide sufficient funding for transit facility expansion is unknown. Therefore, this impact would remain significant and unavoidable.

#### ***Mitigation Measure 5.4-4—Roadway Constrained 6-Lane “Plus” Alternative***

The County shall modify Implementation Measure TC-L as follows:

**Revised Implementation Measure TC-L:** The County shall develop a funding mechanism that requires new development to pay for additional or expanded park-and-ride lots identified by ~~Work with~~ transit providers in the County; or the California Department of Transportation; The County shall also work with transit providers in the County and other agencies to determine the need for additional or expanded park-and-ride lots, to identify additional sites for such lots, and to acquire necessary rights-of-way for them.

With implementation of this mitigation measure, impacts would be reduced to a less-than-significant level, but the feasibility of adopting a funding mechanism to provide sufficient

funding for transit facility expansion is unknown. Therefore, this impact would remain significant and unavoidable.

***Mitigation Measure 5.4-4—Environmentally Constrained Alternative***

Please refer to the proposed mitigation measure for the Roadway Constrained Alternative above. With implementation of this mitigation measure, impacts would be reduced to a less-than-significant level, but as described under the No Project Alternative, the feasibility of adopting a funding mechanism to provide sufficient funding for transit facility expansion is unknown. Therefore, this impact would remain significant and unavoidable.

**Mitigation Measure 5.4-4 – 1996 General Plan Alternative**

Please refer to the proposed mitigation measure for the No Project Alternative above. With implementation of this mitigation measure, impacts would be reduced to a less-than-significant level, but as described under the No Project Alternative, the feasibility of adopting a funding mechanism to provide sufficient funding for transit facility expansion is unknown. Therefore, this impact would remain significant and unavoidable.

# **Exhibits**