
Chapter 4
Transportation and Circulation

CHAPTER 4

TRANSPORTATION AND CIRCULATION

4.1 INTRODUCTION

To assess the implications of the *General Plan*, future travel demand was estimated and the operation of the County's future transportation system was evaluated. The analysis focused on 2010 travel demand and projected needs. Travel forecasts were also made for 2040 conditions so that transportation corridors that would be needed beyond 2010 under the *General Plan* could be identified. The transportation impact analysis covers the following issues:

- Analysis, Methodology and Assumptions
- Trip Generation and Mode Choice
- Streets and Highways
- Transit
- Non-Motorized Transportation (Bicycles and Pedestrians)
- Transportation System Management (TSM)
- Goods Movement
- Aviation

4.2 ANALYSIS METHODOLOGY AND ASSUMPTIONS

The identification of future transportation system needs and impacts is based on a recently developed travel demand model for Placer County. The model translates land use activity into transit patronage and roadway volume projections. Its inputs are estimates of amount and location of development (i.e., the number of single-family and multi-family dwelling units and the amount of square footage of various categories of non-residential uses) and descriptions of the roadways and transit systems. The model covers the entire Sacramento region including the central and western portions of Placer County and is consistent with the regional models used by the two regional planning agencies: the Sacramento Area Council of Governments (SACOG) and the Placer County Transportation Commission (PCTC). Because of the regional focus of the model, the analysis of transportation impacts is inherently cumulative, addressing not only the effects of development within the unincorporated area of Placer County, but also in the county's cities and other communities in the greater Sacramento area.

The travel model does not cover the portion of the county east of Colfax and Foresthill. For the Sierra and Tahoe Basin areas of the county, future forecasts were based on a "trend" analysis which considered the following:

- Trends in traffic count data for 5-, 10-, and 20-year periods (Caltrans traffic counts on State highways between 1970 and 1992 were utilized).
- Traffic forecasts from the Tahoe Regional Planning Agency (TRPA).
- Land use forecasts for the Sierra and Tahoe Basin areas.

Travel forecasts were prepared on all the major roadways in the county for an average weekday. For the Sierra and Tahoe Basin areas, forecasts of "recreational peak" traffic volumes were also conducted.

LAND USE AND TRANSPORTATION SYSTEMS ASSUMPTIONS

Year 2010

The transportation impact analysis focuses on 2010 travel demands and needs. The travel model used to prepare travel forecasts for Placer County required estimates of 2010 development throughout the Sacramento metropolitan area. Within Placer County, the projected 2010 population and employment described in Chapter 2 of this EIR were used. For the rest of the metropolitan area, SACOG's estimates of the location and level of 2010 population and employment were used to develop the regional travel forecasts. Tables 4-1 and 4-2 provide a summary by county of the growth in population and employment assumed in the travel analysis. These development forecasts indicate the following:

- The region is expected to absorb nearly one million people by 2010. About two-thirds of the population growth is expected to occur in Sacramento County. South Placer County is expected to be one of the fastest growing areas of the region.
- Employment in both the region and Placer County is expected to grow at a faster rate than population.
- SACOG assumed substantial development would occur in South Sutter County by 2010. Its forecasts may be revised due to the uncertain status of that development.

The evaluation of transportation problems and needs for 2010 began with the development of a "2010 Base Transportation System" which included proposed improvements with relatively secure funding sources. This base system included the following:

- PCTC's Regional Transportation Plan "Assured Funding" Project List.
- Other transportation improvements which could be expected to be implemented by 2010 in order to serve growth in the urban reserve or proposed annexation areas of Lincoln, Rocklin and Roseville.
- Transportation improvements that could be expected to be implemented by 2010 in order to serve the proposed development in unincorporated Placer County.

PCTC's "Assured Funding" Project List in their Regional Transportation Plan Update (January 1994) includes those projects "for which there is currently a mechanism in place to collect and distribute funds for transportation projects. This includes local development fees, assessment districts, Transportation Development Act Funds and funds that have already been proposed by State and Federal government." PCTC relied on the guidance of the responsible jurisdiction to determine the funding assurance of an individual project. Based on discussions with Placer County staff, the Rocklin Road extension from Barton Road to Auburn-Folsom Road was not included in the 2010 Base Transportation System (but was included in the 2040 Base Transportation System). In addition to the \$195 million of roadway capacity improvements (shown in Table 4-3), PCTC's "Assured Funding" Project List includes \$131 million of other roadway improvement projects (including traffic signals, widening to provide shoulders or bikeways, bridge repair/replacement, improvements to sight distance or curves, and drainage improvements) for a total roadway improvement cost of \$326 million.

PCTC's "Assured Funding" Project List does not include some roadway improvements that would be needed to provide access to development in the urban reserve and proposed annexation areas in the spheres of influence of Lincoln, Rocklin and Roseville. The estimated levels of population and employment

within these cities (described in Chapter 2) indicates that portions of their urban reserve and proposed annexation areas would need to be developed by 2010 to accommodate their projected growth. The "2010 Base Transportation System" assumed that several new roadways that would be needed to provide access to these areas would be implemented by 2010. These assumed new roadways, shown in Table 4-4, were based on the following:

- Lincoln Sphere of Influence - By 2010, development was assumed in the West Lincoln and the "Phase I Annexation Areas" as described in Lincoln's "Public Facilities Element" prepared in 1991, as well as in the "Phase one" portion of the Twelve Bridges Community Plan that was approved in 1994. The major roadways needed to serve these areas were assumed to be implemented by 2010.
- Rocklin Sphere of Influence - Some development was assumed in the Sunset West, North Stanford Ranch, and Clover Valley Lakes projects by 2010. Roadways needed to serve these developments were based on the North Rocklin Traffic Study.
- Roseville Sphere of Influence - By 2010, some development was assumed in proposed projects located in Roseville's urban reserve and proposed annexation areas. The roadways needed to serve these areas was based on the City's ongoing Comprehensive Land Use Element Update.

The roadway improvements within the spheres of influence of the cities were assumed to be implemented through development financing mechanisms that would be part of the plans for these areas.

As described in Chapter 2, development was also assumed to occur by 2010 in the western part of the Dry Creek/West Placer Community Plan Area (the proposed Villages of Dry Creek) and in the proposed Heritage at Bickford Ranch in unincorporated Placer County. The "2010 Base Transportation System" assumed that several new roadways (also shown in Table 4-4) would be implemented in 2010 to provide access to these areas.

PCTC's "Assured Funding" Project List does not provide specific transit projects that could be expected to be implemented by 2010. Rather, it provides levels of operating and capital costs as well as revenues by public transit operators that are estimated to be available to fund public transit between 1993 and 2015. Transit service in Placer County is currently very limited, and while PCTC's assumed revenue and expenditure projections are greater than current level's (on an annual basis), they would not fund major improvements to transit service in Placer County. Consequently, the "2010 Base Transportation System" includes the following assumptions on transit service:

- Sacramento Regional Transit (RT) would extend light rail to Antelope.
- A substantial "feeder" bus system to the light rail stations was assumed. This included bus lines following some arterial roadways in Roseville and Rocklin, and along Highway 65 from Lincoln and along I-80 from Auburn to serve the Antelope station. A bus line along Watt Avenue from the proposed Villages of Dry Creek to serve the Watt Avenue light rail station was also assumed. The feeder bus lines were based on those defined by RT as part of its System Planning Study.

In addition to its function as a feeder service to the light rail system, the expanded bus system would also provide some additional intra-county transit service.

- Limited expansion of the intercity rail service by 2010 with additional trains from Placer County to Sacramento and the Bay Area.

**TABLE 4-1
POPULATION GROWTH BY COUNTY
1992 to 2010**

County	Population		Percent Growth	Annual Growth
	1992	2010		
Placer	179,000	310,000	73%	7,280
Sacramento	1,099,000	1,722,000	57%	34,610
Yolo	149,000	239,000	60%	5,000
South Sutter ¹	3,000	51,000	1,600%	2,670
West El Dorado ²	80,000	146,000	82%	3,670
Total	1,510,000	2,468,000	63%	53,230

- 1. East of the Feather River
- 2. West of Pollock Pines

Source: SACOG - Metropolitan Transportation Plan, September 1993

**TABLE 4-2
EMPLOYMENT GROWTH BY COUNTY
1992 to 2010**

County	Employment		Percent Growth	Annual Growth
	1992	2010		
Placer	69,000	153,000	122%	4,670
Sacramento	487,000	855,000	76%	20,440
Yolo	64,000	125,000	95%	3,390
South Sutter ¹	500	20,000	N/A	1,080
West El Dorado ²	19,000	45,000	137%	1,440
Total	639,500	1,198,000	87%	31,000

- 1. East of the Feather River
- 2. West of Pollock Pines

Source: SACOG - Metropolitan Transportation Plan, September 1993

TABLE 4-3

ROADWAY CAPACITY IMPROVEMENTS - ASSURED FUNDING PROJECT LIST
 PCTC 1993 Regional Transportation Plan

Jurisdiction	Roadway	Limits	Improvements	Cost
Caltrans	I-80	Sierra College Blvd	Interchange Improvements	\$14,500,000
	SR 49	Bell, Atwood, New Airport, Luther, Live Oak, Florence, Dry Creek, Quartz, Willow Creek	Intersection Improvements and signalization	\$1,750,000
Placer County	SR 65	Pleasant Grove, Blue Oaks, Sunset, Whitney	Construct Interchanges	\$28,200,000
	SR 193	Lincoln to Sierra College	Widen to 4 lanes	\$3,000,000
	Atwood	SR 49 to Mt Vernon	Widen/Improve intersections	\$962,000
	Auburn Ravine Road	• I-80 Overcrossing	Widen to 4 lanes/ramps	\$2,000,000
	Auburn-Folsom Road	• Sacramento County to Joe Rogers Road	Widen to 4 lanes	\$2,200,000
	Baseline Road	Cook-Riolo to Sutter County	Widen to 4 lanes/left turn lanes	\$5,520,000
	Bell Road	I-80 to Richardson	Widen to 4 lanes	\$2,700,000
	Bill Francis Drive	Extension to Old Airport Road	Construct 2 lanes	\$333,000
	Bowman Undercrossing	Bowman Road to Lincoln Way	Widen to 4 lanes	\$100,000
	Cavitt-Stallman Road	Extension to Douglas Blvd	Construct 2 lanes	\$290,000
	Christian Valley Road	Extension to SR 49 along Florence Drive	Construct 2 lanes	\$507,000
	Cook-Riolo Road	Sacramento County to PFE Road	Construct 2 lanes	\$170,000
	Don Julio Blvd	Sacramento County to PFE Road	Construct 2 lanes	\$170,000
	East Roseville Pkwy	Barton to Sierra College	Widen to 6 lanes	\$868,000
	Edgewood Drive	Auburn Hills to SR 49	Connection to SR 49	\$500,000
	Education Street	Professional to Richardson	Construct 2 lanes	\$127,000

**TABLE 4-3
(Continued)**

Jurisdiction	Roadway	Limits	Improvements	Cost
Placer County (Continued)	Eureka Connector	New Road from Eureka to Roseville Pkwy	Construct 2 lanes	\$580,000
	Eureka Road	Sierra College to Auburn-Folsom	Improve and widen	\$820,000
	Foothills Blvd	City of Roseville to City of Lincoln	Construct 2 lanes	\$3,200,000
	Galena Drive	Quartz Drive to Bell Road	Construct 2 lanes	\$158,000
	Lincoln Way	Russell Road to Ferguson	Widen to 4 lanes	\$328,000
	Luther Road	• Bowman Road to Carriage Lane • SR 49 to Canal Street	Widen to 4 lanes Widen to 4 lanes	\$184,000 \$120,000
	North Antelope Road	Sacramento County to PFE Road	Widen to 4 lanes	\$187,000
	Old Auburn Road	• Sierra College to Roseville Parkway • Sierra College to City of Roseville	Construct 2 lanes Widen to 4 lanes	\$243,000 \$350,000
	PFE Road	North Antelope to City of Roseville	Widen to 6 lanes	\$364,000
	Placer Hills Road	I-80 to Combie Road	Widen to 3 lanes	\$4,400,000
	Professional Drive	Bell Road to Atwood	Construct 2 lanes	\$301,000
	Quartz Drive	• Extension to Richardson • SR 49 S.E. to Bell	Construct 2 lanes Construct 2 lanes	\$158,000 \$404,000
	Richardson Drive	• Dry Creek to Bell Road • Atwood to Mt Vernon	Construct 2 lanes Construct 2 lanes	\$554,000 \$1,160,000
	Sierra College Blvd	• Loomis to English Colony Road • Sacramento County to Rocklin • I-80 to Rocklin Road	Widen to 4 lanes Widen to 6 lanes Widen to 6 lanes	\$350,000 \$2,900,000 \$1,100,000
	Sunset Boulevard	SR 65 to Fiddymnt	Widen/Construct 4 lanes	\$3,200,000
	Walerga	Baseline to Sacramento County	Widen to 6 lanes	\$4,140,000
	Whitney Boulevard	SR 65 to Fiddymnt	Construct 4 lanes	\$3,200,000
	Willowcreek Road	SR 49 to Third Street	Construct 4 lanes	\$592,000

**TABLE 4-3
(Continued)**

Jurisdiction	Roadway	Limits	Improvements	Cost
Rocklin	Dominguez	Granite Dr to Sierra College Campus	Construct I-80 Overcrossing	\$3,000,000
	Granite Drive	Sierra College to Rocklin Mall Site	Construct I-80 Overcrossing	\$3,000,000
	Rocklin Road	• At I-80	Widen to 5 lanes	\$300,000
		• Intersection with Sierra College	Add left turn lanes in all directions	\$500,000
	Sunset Boulevard	Pacific Street to Topaz Ave	Widen to 6 lanes	\$1,820,000
Roseville	Atlantic Street	Vernon to Harding Blvd	Widen to 4 lanes	\$5,000,000
	Baseline Road	City limits to Foothills Blvd	Widen to 4 lanes	\$3,448,000
	Blue Oaks Boulevard	Foothills Blvd to Woodcreek Oaks Blvd	Construct 4 lanes	\$981,000
	Cirby Way	• Riverside Ave to Regency Way	Widen to 5 lanes	\$35,000
		• Foothills Blvd to Riverside Ave	Widen to 6 lanes	\$3,383,000
		• Regency Way to Oak Ridge Drive	Widen to 6 lanes	\$526,000
	Eureka Boulevard	Sierra College Blvd to City Limits	Widen to 4 lanes	\$339,000
	Eureka Rd/Douglas Blvd	Intersection of	Add turn lanes	\$262,000
	Foothills Blvd/Atkinson St	Intersection of	Add turn lanes	\$368,000
	Foothills Blvd/Main St	Intersection of	Add turn lanes	\$175,000
	Foothills Blvd/Roseville Road and Cirby	Intersection of	Add turn lanes	\$133,000
	Foothills Boulevard	Cirby Way to Pleasant Grove Blvd	Widen to 6 lanes	\$199,000
	Harding Blvd/Lead Hill Blvd	Intersection of	Add turn lanes	\$115,000
Harding Blvd/Roseville Pkwy	Intersection of	Construct grade separated urban interchange	\$7,775,000	

**TABLE 4-3
(Continued)**

Jurisdiction	Roadway	Limits	Improvements	Cost	
Roseville (Continued)	Harding Boulevard	Berry Street to Roseville Pkwy	Widen to 6 lanes	\$200,000	
	Industrial Boulevard	Washington Blvd to City Limits	Widen to 4 lanes	\$2,268,000	
	Old Auburn Road	South Cirby Way to West City Limits	Widen to provide a center 2-way left turn lane	\$224,000	
	Pleasant Grove Boulevard		• Highway 65 to Rocklin City Limits	Construct 4 lanes	\$4,252,000
			• Roseville Pkwy to Highway 65	Construct 6 lanes	\$907,000
			• Roseville Pkwy to Washington Blvd	Widen to 6 lanes	\$925,000
			• SPRR Overcrossing	Construct 6 lane overcrossing	\$4,656,000
			• Washington Blvd to Woodcreek Oaks Blvd	Widen to 6 lanes	\$2,191,000
	Riverside Ave/Cirby Way	Intersection of	Grade separation	\$8,085,000	
	Rocky Ridge Dr/Cirby Way	Intersection of	Add turn lanes	\$170,000	
	Roseville Parkway		• City Limits to Sierra College Blvd	Widen to 4 lanes	\$535,000
			• Rocky Ridge Rd to Sunrise Ave	Construct 6 lanes	\$7,957,000
			• Taylor Road to Harding Blvd	Construct 6 lanes	\$8,444,000
			• Harding Blvd to Washington Blvd	Widen to 6 lanes	\$1,440,000
	Roseville Pkwy/Douglas Blvd	Washington Blvd to Foothills Blvd	Construct 4 lanes	\$5,000,000	
	Roseville Road	Intersection of	Add turn lanes	\$262,000	
	Sierra College/Old Auburn Rd	City Limits to Cirby Way	Construct 4 lanes	\$950,000	
	Sierra College/Douglas Blvd	Intersection of	Add turn lanes	\$91,000	
	Sierra College Blvd	Intersection of	Add turn lanes	\$262,000	
	Stanford Ranch Road		• Douglas Blvd to N City Limits	Widen to 6 lanes	\$412,000
• Sacramento County Line to Roseville Pkwy			Widen to 6 lanes	\$1,576,000	
Sunrise Avenue	SR 65 to Rocklin City Limits	Widen to 6 lanes	\$1,400,000		
	Sacramento County Line to Madden Lane	Widen to 6 lanes	\$1,080,000		

**TABLE 4-3
(Continued)**

Jurisdiction	Roadway	Limits	Improvements	Cost	
Roseville (Continued)	Sunrise Ave/Cirby Way	Intersection of	Add turn lanes	\$3,837,000	
	Sunrise Blvd/Lead Hill Blvd	Intersection of	Add turn lanes	\$87,000	
	South Cirby Way	Rocky Ridge Drive to Wildwood Way	Widen to 4 lanes	\$274,000	
	Taylor Road	Eureka Road to City Limits	Widen to 4 lanes	\$2,696,000	
	Vernon St/Cirby Way	Intersection of	Add turn lanes	\$80,000	
	Washington Blvd/Main St	Intersection of	Add turn lanes	\$50,000	
	Washington Blvd	Sawtell to Blue Oaks Blvd, including Andover undercrossing	Widen to 4 lanes	\$7,291,000	
	Loomis	Sierra College	• Granite to Taylor	Widen to 6 lanes	\$2,800,000
			• Taylor to North Town Limits	Widen to 4 lanes	
	Auburn	Taylor Road	Horseshoe Bar Road to Ling Road	Widen to 4 lanes + 2 turn lanes	\$450,000
Lincoln Way		Ferguson Road to Russell Road	Widen to 4 lanes	\$100,000	
Nevada Street		I-80 to Auburn City Limits	Widen to 3 lanes	\$200,000	
			Total Cost	\$195,401,000	

TABLE 4-4

ADDITIONAL ROADWAY CAPACITY IMPROVEMENTS
(BEYOND PCTC ASSURED FUNDING PROJECT LIST)
Assumed in the 2010 Base Transportation System

Jurisdiction	Roadway	Limits	Improvements
Rocklin	Park Drive	Wyeford to Clover Valley	Construct 4 lanes
	Stanford Ranch Road	Darby to Sunset Blvd	Construct 6 lanes
	Blue Oaks Blvd	Highway 65 to Sunset	Construct 4 lanes
	West Oaks Blvd	Sunset to Lonetree	Construct 4 lanes
	Loneire Blvd	Blue Oaks to West Oaks	Construct 4 lanes
Lincoln	Lincoln Airport Drive	Aviation Blvd to Nicolaus	Construct 2 lanes
	Lincoln Parkway	<ul style="list-style-type: none"> • Moore Road to Hwy 65 • Hwy 65 to "D" Street 	Construct 4 lanes Construct 2 lanes
	Foothills Boulevard	Lincoln Crossing Boundary to Hwy 65	Construct 4 lanes
	Eastlake Boulevard	SR 65 to SR 195	Construct 4 lanes
	"C" Street	Eastlake Blvd to SR 193	Construct 2 lanes
	"D" Street	Lincoln Pkwy to "C" Street	Construct 2 lanes
	Blue Oaks Boulevard	Woodcreek Oaks to Fiddymont	Construct 2 lanes
	Pleasant Grove Boulevard	West of Woodcreek Oaks to Fiddymont	Construct 2 lanes
	Junction Boulevard	West of Woodcreek Oaks to Fiddymont	Construct 2 lanes
	Del Webb Boulevard	Fiddymont to Blue Oaks	Construct 2 lanes
Placer County	Sun City Boulevard	Pleasant Grove to Del Webb	Construct 2 lanes
	16th Street	Sacramento County to Baseline Road	Construct 2 lanes
	Dyer Lane	Watt Avenue to 16th Street Extension	Widen/construct 2 lanes
	Village Parkway (Bickford Ranch)	Sierra College Blvd to Clark Tunnel Road	Construct 4 lanes

Source: DKS Associates, September 1993.

Year 2040

The transportation impact analysis focused on 2010 travel demands and needs. Travel forecasts were also made for 2040 conditions so that transportation corridors that would be needed beyond 2010 under the *General Plan* could be identified (these corridors are shown on the Circulation Diagram as "post-2010" roadways). This long-horizon evaluation is, by its nature, a less precise analysis of future travel conditions than the 2010 analysis. Its purpose is to give a general indication of the magnitude of travel demand and needs under the *General Plan* when Placer County is closer to its population holding capacity.

The 2040 travel forecasts were based on county-level population forecasts by the California Department of Finance (DOF). Chapter 2 describes the population and employment forecasts within Placer County that were used to develop the 2040 forecasts. For the rest of the five-county metropolitan area, employment forecasts were developed by evaluating employee to population ratios for each county, based on SACOG's population and employment forecasts for 1992, 2010 and 2015. Tables 4-5 and 4-6 provide summaries by county of the 1992 - 2040 growth in population and employment that was assumed in the travel analysis.

The analysis of 2040 travel conditions started with all the projects, both funded and unfunded, on PCTC's 1993 Regional Transportation Plan Project List (included those with "expected" funding and no funding). Table 4-7 shows the transportation projects included in the analysis of 2040 travel demand beyond those assumed in the "2010 Base Transportation System."

TABLE 4-5**1992 - 2040 POPULATION GROWTH BY COUNTY**

County	Population		
	1992	2010	2040
Placer	179,000	310,000	471,000
Sacramento	1,099,000	1,722,000	2,099,000
Yolo	149,000	239,000	386,000
South Sutter ¹	3,000	51,000	122,000
West El Dorado ²	80,000	146,000	244,000
Total	1,510,000	2,468,000	3,322,000

1. East of the Feather River
2. West of Pollock Pines

Sources: SACOG - Metropolitan Transportation Plan, September 1993; California Department of Finance

TABLE 4-6
EMPLOYMENT GROWTH BY COUNTY
1990 to 2040

County	Employment		
	1992	2010	2040
Placer	69,000	152,000	213,000
Sacramento	487,000	855,000	995,000
Yolo	64,000	125,000	206,000
South Sutter ¹	500	20,000	51,000
West El Dorado ²	19,000	45,000	80,000
Total	639,500	1,197,000	1,545,000

- 1. East of the Feather River
- 2. West of Pollock Pines

Source: SACOG - Metropolitan Transportation Plan, September 1993; DKS estimates of 2040 employment levels

TRIP GENERATION AND MODE CHOICE

Year 2010

The substantial increases in population and employment that are projected for Placer County between 1990 and 2010 (described in Chapter 2) will result in a similar level of growth in travel demand. Table 4-8 shows that the number of daily "person trips" generated within south and central Placer County is estimated to approximately double existing levels by 2010 under the *General Plan*. The trip generation of South Placer is expected to grow at an even faster rate than the rest of the county.

The trip generation estimates in Table 4-8 reflect person travel by automobile and transit modes. It does not include trips by walk and bicycle modes since these are not included in the trip generation and mode choice equations of SACOG's or PCTC's travel models. Attempts were made, however, to reflect the potential for higher levels of the pedestrian and bicycle modes in the Villages of Dry Creek due to policies calling for pedestrian/bicycle oriented design in that specific plan area.

Table 4-9 shows the estimated percentage choice of mode for work and non-work travel in 2010 with the *General Plan* assuming the "2010 Base Transportation System." It indicates that transit's share of travel for work and non-work trips will increase marginally over 1992 levels. While transit's share of travel within Placer County will remain relatively small, by 2010 total transit patronage will increase dramatically over current (1994) levels. If the transit improvements assumed under the *General Plan* are implemented, then transit ridership in Placer County is expected to increase from about 2,100 trips per day in 1990 to about 14,000 in 2010; nearly a seven fold increase.

Table 4-10 presents the estimated daily vehicle trips that would be generated in 2010 with the *General Plan* assuming the "2010 Base Transportation System." An important measure of the effectiveness of

Placer County's transportation system (and transportation related services and programs) is the ability to achieve the "average vehicle ridership" (AVR) goal of 1.4 persons per vehicle by 1999 that is required by the California Clean Air Act. Simply described, AVR is the ratio of person trips to vehicle trips for all trip purposes (work and non-work related) during commuter periods and reflects the extent to which vehicle travel is reduced by carpools, transit, bicycles and walking.

Currently the overall AVR for south and central Placer County during commute hours is estimated at about 1.25 to 1.28 average persons per vehicle. Under the *General Plan* with the "2010 Base Transportation System" the AVR would only increase marginally to about 1.26 to 1.29 persons per vehicle. This estimate of 2010 AVR accounts for the assumed increase in transit service in the county, but also assumes a significant decrease in vehicle trips due to employer-based trip reduction measures.

Year 2040

Table 4-11 shows the estimated number of daily "person trips" generated within south and central Placer County for the year 2040. It indicates that person trip travel demand is expected to more than triple existing levels by 2040 under the *General Plan*. The highest increases would occur in South Placer where total travel demand is expected to nearly quadruple.

TABLE 4-7

ADDITIONAL ROADWAY CAPACITY IMPROVEMENTS
ASSUMED IN THE 2040 BASE TRANSPORTATION SYSTEM

Jurisdiction	Roadway/Corridor	Limits	Improvements
Caltrans	Route 49	<ul style="list-style-type: none"> I-80 to Dry Creek Road Blue Oaks to Industrial Boulevard 	Widen to 6 lanes Widen to 4 lanes
	Route 65	Lincoln Bypass	Construct 2 1/4 lanes expressway
	I-80	at Rocklin Road	Reconstruct interchange
Placer County	Blue Oaks Boulevard	<ul style="list-style-type: none"> Fiddymont Road to Watt Avenue Extension Watt Avenue Extension to Sutter County 	Improve to 6 lane thoroughfare Construct 6 lane thoroughfare
	Pleasant Grove Boulevard	Fiddymont Road to Sutter County	Construct 4 lanes
	Rocklin Road	Barton Road to Auburn-Folsom Road	Construct 2 lanes
	Parallel Roadway to Route 65	Twelve Bridges to Whitney Boulevard	Construct 4 lanes east of Route 65
Rocklin	Rocklin Road	I-80 to Sierra College Boulevard	Widen to 6 lanes
Roseville	Pacific Street	Midas Ace to Loomis Town Limits	Widen to 4 lanes
	Douglas Boulevard	at Sunrise	Grade separation
Loomis	Horseshoe Bar Road	Taylor Road to I-80	Widen to include left-turn lanes and modify interchange

TABLE 4-8

ESTIMATED 2010 TRIP GENERATION - DAILY PERSON TRIPS

Trip Purpose	Area	Existing	2010 with General Plan	Percent Increase
Work Trips	South Placer	167,000	418,000	150%
	Auburn-Foothills	72,000	111,000	54%
	Lower Sierra	16,000	22,000	38%
	<i>Subtotal</i>	255,000	551,000	116%
Non-Work Trips	South Placer	752,000	1,779,000	137%
	Auburn-Foothills	374,000	610,000	63%
	Lower Sierra	80,000	108,000	35%
	<i>Subtotal</i>	1,206,000	2,497,000	107%
Total Trips	South Placer	919,000	2,198,000	139%
	Auburn-Foothills	446,000	722,000	62%
	Lower Sierra	96,000	130,000	35%
	<i>Subtotal</i>	1,461,000	3,050,000	109%

TABLE 4-9

ESTIMATED 2010 MODE CHOICE

Trip Purpose	Existing Conditions			2010 with General Plan		
	South Placer	Auburn-Foothills	Lower Sierra	South Placer	Auburn-Foothills	Lower Sierra
Home-Based Work						
SOV	82.9%	83.1%	82.9%	82.4%	82.9%	77.5%
HOV	16.4%	16.9%	17.1%	16.0%	16.7%	22.5%
Transit	0.7%	0.1%	0.0%	1.6%	0.4%	0.0%
Non-Work						
SOV	52.3%	52.7%	50.5%	53.6%	53.9%	50.6%
HOV	47.5%	42.2%	49.6%	46.1%	46.0%	49.4%
Transit	0.1%	0.0%	0.0%	0.3%	0.1%	0.0%
All Purposes						
SOV	58.7%	58.6%	57.4%	58.8%	58.5%	55.2%
HOV	41.0%	41.4%	42.6%	40.7%	41.5%	44.8%
Transit	0.2%	0.0%	0.0%	0.6%	0.0%	0.0%

SOV = single occupant vehicle
HOV = high occupancy vehicle

TABLE 4-10

ESTIMATED 2010 TRIP GENERATION - DAILY VEHICLE TRIPS

Trip Purpose	Area	Existing	2010 with General Plan	Percent Increase
Work Trips	South Placer	151,000	376,000	149%
	Auburn-Foothills	66,000	101,000	53%
	Lower Sierra	15,000	20,000	33%
	<i>Subtotal</i>	<u>232,000</u>	<u>497,000</u>	<u>114%</u>
Non-Work Trips	South Placer	556,000	1,417,000	155%
	Auburn-Foothills	278,000	451,000	62%
	Lower Sierra	58,000	79,000	36%
	<i>Subtotal</i>	<u>892,000</u>	<u>1,947,000</u>	<u>118%</u>
Total Trips	South Placer	707,000	1,792,000	154%
	Auburn-Foothills	344,000	552,000	61%
	Lower Sierra	73,000	99,000	36%
	<i>Subtotal</i>	<u>1,124,000</u>	<u>2,443,000</u>	<u>117%</u>

TABLE 4-11

ESTIMATED 2040 TRIP GENERATION - DAILY PERSON TRIPS

Trip Purpose	Area	Existing	2040 with General Plan	Percent Increase
Work Trips	South Placer	167,000	665,940	299%
	Auburn-Foothills	72,000	142,870	98%
	Lower Sierra	16,000	28,994	81%
	<i>Subtotal</i>	<u>255,000</u>	<u>837,804</u>	<u>229%</u>
Non-Work Trips	South Placer	752,000	2,878,105	283%
	Auburn-Foothills	374,000	775,856	107%
	Lower Sierra	80,000	136,054	70%
	<i>Subtotal</i>	<u>1,206,000</u>	<u>3,790,015</u>	<u>214%</u>
Total Trips	South Placer	919,000	3,544,045	286%
	Auburn-Foothills	446,000	918,726	106%
	Lower Sierra	96,000	165,048	72%
	<i>Subtotal</i>	<u>1,461,000</u>	<u>3,008,000</u>	<u>217%</u>

4.3 STREETS AND HIGHWAYS

SETTING

The existing circulation system for Placer County consists of a roadway network that until recently was primarily rural in character but is rapidly urbanizing in the south and western portions of the county. The backbone of the county's roadway system are its state highways, particularly Interstate 80 which traverses the county from east to west.

Interstate 80 is the only east-west interstate freeway crossing the Sierras and Cascades in a 1000-mile stretch between Bakersfield, California on the south, and Portland, Oregon on the north. Interregional and interstate business, freight, tourist, and recreation travel between the Pacific Coast, the San Joaquin and Sacramento Valleys, and points east use this route. I-80 also serves as an important commuter route in South Placer County, and it provides the only major route connecting the western and eastern portions of Placer County.

In addition to I-80, Placer County is also served by State Routes 20, 28, 49, 65, 89, 174, 193, and 267. These state highways, together with certain important arterial roadways in the county, have been classified as "principal arterials" in the Placer County Congestion Management Program (CMP). The CMP network of principal arterials is presented in Table 4-12. It represents approximately 230 miles of roadway in Placer County.

In addition to the principal arterial system, the county is also served by other major roadways that serve local traffic and provide access to the principal arterial system. Some of these roadways function as "arterial" roadways, but have not been officially classified as such since Placer County does not have a comprehensive "functional classification" for its roadway system.

Table 4-18 summarizes existing daily traffic volumes on Placer County's major roadway network (along with 2010 traffic forecasts under the *General Plan*). The evaluation of traffic volumes on the roadway network provides an understanding of the general nature of travel conditions in the County. However, traffic volumes do not indicate the quality of service provided by the roadway facilities nor the ability of the roadway network to carry additional traffic. To accomplish this, the concept of "level of service" has been developed.

Level of service is a qualitative measure of the effect of a number of factors which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operation costs. Levels of service are designated "A" through "F" from the best to worst, and cover the entire range of traffic operations that might occur. Level of service "E" describes conditions at, or approaching, maximum capacity.

LOS F1, F2, and F3+ provide a general indication of the length of time during the peak commute periods that a roadway would operate at LOS F conditions. F1 represents one to two hours of LOS F conditions; F2 reflects two to three hours; and F3+ indicates three or more hours.

Some of the incorporated cities in Placer County have adopted level of service standards as part of their General Plans. Level of service standards were also adopted in the recent updates to the Auburn/Bowman, Granite Bay and Dry Creek/West Placer Community Plans. However, Placer County does not currently have an adopted comprehensive level of service standard.

Tables 4-13 through 4-15 summarize the level of service definitions for each of the facility categories. A review of these tables indicates that traffic operations start to deteriorate (i.e., level of service "D") at a volume/capacity ratio of .78 or .80 for freeways and arterial roadways. On two-lane rural highways, however, level of service "D" begins at a much lower volume to capacity ratio (0.39 for level terrain and 0.31 for mountainous terrain). This level of service distinction recognizes that two-lane rural highways are used for long-distance travel and passing is required to maintain high travel speeds. Passing on two-lane highways becomes difficult at relatively low volume to capacity ratios, thus causing driver frustration and hazardous driving conditions. Some two-lane roadways in south and western Placer County were categorized as arterials rather than rural highways, since they generally accommodate short trips, rather than long-distance trips.

TABLE 4-12

CMP-DESIGNATED ROADWAY SYSTEM OF PRINCIPAL ARTERIALS

Roadway	Limits	Jurisdiction	Length (miles)
I-80	Sacramento Co to Nevada Co	Auburn, Colfax, Loomis, Rocklin, Roseville, Placer County	66.2
State Route 20	Nevada Co to I-80	Placer County	1.8
State Route 28	SR 89 to Nevada State Line	Placer County	10.9
State Route 49	Nevada Co to El Dorado Co	Auburn and Placer County	11.4
State Route 65	Yuba Co to I-80	Lincoln, Rocklin, Roseville, Placer County	21.0
State Route 89	Nevada Co to El Dorado Co	Placer County	21.8
State Route 174	Nevada Co to I-80	Colfax and Placer County	2.8
State Route 193	SR 65 to I-80	Lincoln and Placer County	10.2
State Route 267	Nevada Co to SR 28	Placer County	9.7
Auburn-Folsom Rd	Lincoln Wy (Auburn.) to Sac Co	Auburn and Placer County	14.1
Baseline Road	Sutter Co to Foothills Blvd	Roseville and Placer County	9.5
Bell Road	State Route 49 to I-80	Placer County	2.7
Blue Oaks Blvd	Foothills Blvd to SR 65	Roseville	0.9
Cirby Road	Foothills Blvd to Sunrise Ave	Roseville	1.5
Douglas Blvd	Vernon St to Auburn-Folsom Road	Roseville and Placer County	5.1
Foothills Blvd	Blue Oaks Blvd to Cirby Way	Roseville	4.1
Nicolaus Road	Sutter Co to SR 65	Lincoln and Placer County	9.5
Pacific St/Taylor Rd	I-80 to Rocklin Road	Rocklin and Roseville	2.2
Riverside Ave	Vernon St to I-80	Rocklin	1.4
Rocklin Road	Pacific St to Sierra College Blvd	Rocklin	1.7
Sierra College Blvd	SR 193 to Sacramento Co	Loomis, Rocklin, Roseville, Placer County	12.6
Sunrise Ave	Douglas Blvd to Sacramento Co	Roseville	1.7
Vernon St/Atlantic St	Douglas Blvd to I-80	Roseville	1.8
Washington Blvd	SR 65 to Oak Street	Roseville	3.4

Source: Placer County Congestion Management Plan, January 1994.

TABLE 4-13

FREEWAY LEVEL OF SERVICE DESCRIPTIONS

LOS	V/C Ratio	Description
A	0.00 - 0.35	Free Flow: Vehicles completely unimpeded to maneuver in traffic stream. Average speeds near 60 mph.
B	0.35 - 0.54	Free Flow: Ability to maneuver with traffic stream only slightly restricted. Average speeds over 57 mph.
C	0.55 - 0.77	Stable Flow: Freedom to maneuver in traffic stream noticeably restricted. Average speeds over 54 mph.
D	0.78 - 0.93	Approaching Unstable Flow: Freedom to maneuver in traffic stream is severely limited. Average speed over 46 mph.
E	0.94 - 1.00	Unstable Flow: Volumes at or near capacity. Maneuvering extremely limited. Average speeds over 30 mph.
F	> 1.00	Forced Flow: Queues form behind breakdown points. Average speeds less than 30 mph.

Source: Highway Capacity Manual, Transportation Research Board, 1985.

TABLE 4-14

ARTERIAL LEVEL OF SERVICE DESCRIPTIONS

LOS	V/C Ratio	Description
A	0.00 - 0.59	Free Flow/Insignificant Delays: No approach phase at a signalized intersection is fully utilized by traffic and no vehicle waits longer than one red indication.
B	0.60 - 0.69	Stable Operation/Minimal Delays: An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles.
C	0.70 - 0.79	Stable Operation/Acceptable Delays: Major approach phases fully utilized. Most drivers feel somewhat restricted.
D	0.80 - 0.89	Approaching Unstable/Tolerable Delays: Drivers may have to wait through more than one red signal indication. Queues may develop but dissipate rapidly, without excessive delays.
E	0.90 - 0.99	Unstable Operation/Significant Delays: Volumes near or at capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
F	> 1.00	Forced Flow/Excessive Delays: Represents jammed conditions. Intersection operates below capacity with low volumes. Queues may block upstream intersections.

Source: Highway Capacity Manual, Transportation Research Board, 1985.

TABLE 4-15

TWO-LANE RURAL HIGHWAY LEVEL OF SERVICE DESCRIPTIONS

LOS	Level	Rolling	Mountainous	Description
A	0.00-0.12	0.00-0.08	0.00-0.06	Free Flow: Almost no platoons of three or more cars. Driver delayed no more than 30 percent by slow moving vehicles.
B	0.13-0.24	0.09-0.21	0.08-0.17	Free Flow: Some platoons form. Driver delayed no more than 45 percent by slow moving vehicles.
C	0.25-0.38	0.22-0.38	0.18-0.30	Stable Flow: Noticeable increase in platoon formation and size. Drivers delayed more than 60 percent by slow moving vehicles.
D	0.39-0.62	0.39-0.57	0.31-0.49	Approaching Unstable Flow: Heavy platooning. Passing becomes difficult. Drivers delayed no more than 75 percent by slow moving vehicles.
E	0.63-1.00	0.58-1.00	0.50-1.00	Unstable Flow: Intense platooning. Passing is virtually impossible. Drivers delayed more than 75 percent by slow moving vehicles.
F	> 1.00	> 1.00	> 1.00	Forced Flow: Queues form behind breakdown points.

Note: Assumed conditions include 60/40 directional split, 5% heavy vehicles, and 20%, 40%, and 60% no passing zones for level, rolling and mountainous terrain, respectively.

Source: Highway Capacity Manual, Transportation Research Board, 1985.

To determine roadway level of service, relationships have been developed between daily traffic volumes and level of service based on facility type, number of lanes, temporal distribution of traffic, terrain, and volume-capacity ratio. Table 4-16 describes the general criteria used to define roadway capacity classes for the level of service analysis, while Table 4-17 summarizes approximate maximum daily traffic volumes for each facility/level of service combination. Note that the levels of service from this analysis represents a "planning level" estimate of peak hour conditions, although they are based on daily traffic and capacity estimates.

Higher daily capacities than those shown in Table 4-16 were used on arterials that have (or are planned to have) above normal capacity enhancements at major intersections, including dual left-turn lanes plus right-turn lanes on several approaches and grade separations. Such capacity enhancements are proposed at a number of locations in Roseville under the City's Capital Improvement Program.

The results of these analyses were compared to observed roadway operating characteristics and were found to compare favorably. The existing levels of service for segments of Placer County's major roadways are shown in Table 4-18. Isolated grade separations (such as those assumed at Harding Blvd/Roseville Parkway and at Cirby Way/Riverside Avenue in Roseville) would provide better levels of service than those shown in Table 4-18 based on an intersection level of service analysis.

Most roadways in Placer County currently operate at level of service "C" or better. The major roadways that operate at level of service "D" or worse include I-80 in Roseville, Highway 49 north of I-80, Highway 28 and Highway 89 near Tahoe City, Highway 267 north of Kings Beach, and certain arterial roadways within the City of Roseville.

TABLE 4-16
ROADWAY CAPACITY CLASSES

Roadway Capacity Class	General Criteria			
	Stops/Mile	Driveways	Free Flow Speed Range	Lanes
1. Freeway - Level Terrain	0	None	55 - 65	4+
2. Freeway - Rolling Terrain	0	None	55 - 65	4+
3. Freeway - Mountain Terrain	0	None	50 - 60	4+
4. Arterial - High Access Control	1 - 2	Limited	35 - 50	2+
5. Arterial - Moderate Access Control	2 - 4	Moderate	30 - 35	2+
6. Arterial - Low Access Control	4+	High	25 - 35	2+
7. Rural 2-lane Highway - Level Terrain	-	Limited	55 - 65	2
8. Rural 2-lane Highway - Rolling Terrain	<1	Limited	55 - 65	2
9. Rural 2-lane Highway - Mountain Terrain	2	Limited	50 - 60	2

Source: Highway Capacity Manual, Transportation Research Board, 1985

TABLE 4-17
EVALUATION CRITERIA FOR LEVEL OF SERVICE

Roadway Capacity Class	Maximum Daily Traffic Volume Per Lane - Level of Service				
	A	B	C	D	E
1. Freeway - Level Terrain	6,300	10,620	13,680	16,740	18,000
2. Freeway - Rolling Terrain	5,290	8,920	11,650	14,070	15,120
3. Freeway - Mountain Terrain	3,400	5,740	7,490	9,040	9,720
4. Arterial - High Access Control	6,000	7,000	8,000	9,000	10,000
5. Arterial - Moderate Access Control	5,400	6,300	7,200	8,100	9,000
6. Arterial - Low Access Control	4,500	5,250	6,000	6,870	7,500
7. Rural 2-lane Highway - Level Terrain	1,500	2,950	4,800	7,750	12,500
8. Rural 2-lane Highway - Rolling Terrain	800	2,100	3,800	5,700	10,500
9. Rural 2-lane Highway - Mountain Terrain	400	1,200	2,100	3,400	7,000

Source: DKS Associates, based upon Highway Capacity Manual, Transportation Research Board, 1985

TABLE 4-18

**ESTIMATED TRAFFIC VOLUMES AND LEVELS OF SERVICE
Year 2010 Base Transportation System**

Roadway/Segment	ADT		Lanes		LOS	
	1990	2010	1990	2010	1990	2010
STATE HIGHWAYS						
I-80						
Sacramento Co to Riverside Drive	98,000	142,000	8	8	C	E
Riverside Dr to Douglas Blvd	98,000	121,000	6	6	D	F1
Douglas Blvd to Atlantic St	96,000	119,000	6	6	D	F1
Atlantic St to Route 65	74,000	100,000	6	6	C	D
Route 65 to Rocklin Rd	73,000	113,000	6	6	C	F1
Rocklin Rd to Sierra College Blvd	70,000	112,000	6	6	C	F1
Sierra College Blvd to Nixon-Loomis Rd	69,000	113,000	6	6	C	F1
Nixon-Loomis Rd to Penryn	67,000	111,000	6	6	C	F1
Penryn Rd to Route 193	64,000	107,000	6	6	C	F1
Route 193 to Auburn Limits	61,000	103,000	6	6	C	F1
Auburn Limits to Route 49	61,000	99,000	6	6	C	F1
Route 49 to Auburn Ravine	41,000	70,000	6	6	B	D
Auburn Ravine to Bell Road	40,000	68,000	6	6	B	C
Bell Road to Auburn Limits	38,000	65,000	6	6	B	C
Auburn Limits to Dry Creek Road	38,000	65,000	6	6	B	C
Dry Creek Road to Clipper Gap Road	38,000	61,000	6	6	B	C
Clipper Gap Road to Applegate Road	32,000	55,000	6	6	B	C
Applegate Road to Heather Glen	33,000	51,000	6	6	B	B
Heather Glen to Weimar Cross Road	31,000	48,000	4	4	B	D
Weimar Cross Road to Illinois Town	29,500	48,500	4	4	B	D
Illinois Town to Colfax/Route 174	29,000	44,000	4	4	B	C
Colfax/Route 174 to Magra	25,500	37,500	4	4	C	E
Magra to Gold Run	25,000	37,000	4	4	C	E
Gold Run to Monte Vista	23,400	34,000	4	4	C	D
Monte Vista to Alta Road	23,400	32,700	4	4	C	D
Alta Road to Baxter	23,400	32,700	4	4	C	D
Baxter to Drum Forebay Road	21,000	27,900	4	4	B	C
Drum Forebay Road to Blue Canyon	21,700	28,900	4	4	B	C
Blue Canyon to Putts Lake	21,700	28,700	4	4	B	C
Putts Lake to Carpenter Flat	21,200	27,500	4	4	B	C
Carpenter Gap to Yuba Gap (Nev Co)	21,000	27,000	4	4	B	C
Nevada County line to Cisco Grove	22,400	30,000	4	4	B	D

TABLE 4-18 (Continued)						
Roadway/Segment	ADT		Lanes		LOS	
	1990	2010	1990	2010	1990	2010
STATE HIGHWAYS						
I-80 (Continued)						
Cisco Grove to Hampshire Rocks	22,300	29,700	4	4	B	C
Hampshire Rocks to Kingvale	22,700	29,600	4	4	B	C
Route 65						
I-80 to Harding Blvd	16,400	46,400	4	4	A	C
Harding Blvd to Blue Oaks Blvd	16,400	54,400	4	4	A	C
Blue Oaks Blvd to Sunset Blvd	15,300	20,300	2	2	C	E
Sunset Blvd to Industrial Blvd	14,300	24,300	2	2	C	E
Industrial Blvd to Lincoln Parkway	14,500	25,500	2	2	C	F1
Lincoln Parkway to Eastlake Drive	14,500	20,800	2	2	C	F1
Eastlake Drive to Lincoln south city limits	14,500	17,800	2	2	C	D
Lincoln south city limits to Wise Rd	14,100	24,100	2	2	C	F2
Wise Road to Sheridan	8,900	10,900	2	2	A	A
Sheridan to Yuba Co Line	9,800	14,800	2	2	A	D
Route 193						
Route 65 to Auburn Ravine	7,400	22,400	2	4	A	B
Auburn Ravine to Sierra College Blvd	6,500	22,500	2	4	C	B
Sierra College Blvd to Clark Tunnel Rd	4,600	13,600	2	2	B	D
Clark Tunnel Rd to Gold Hill Rd	3,400	8,350	2	2	B	C
Gold Hill Road to I-80	4,600	10,550	2	2	C	D
Route 49						
Foresthill Road to Lincoln Wy	6,200	16,200	2	2	C	E
Lincoln Way to I-80 (EASTBOUND)	13,500	14,500	4	4	A	A
I-80 (EASTBOUND) to Palm Avenue	30,000	36,000	4	4	D	E
Palm Avenue to Luther Rd	36,000	52,000	4	4	D	F2
Luther Road to Bell Road	40,000	54,000	4	4	E	F2
Bell Road to Dry Creek	27,500	36,500	4	4	B	E
Dry Creek to Nevada County Line	20,000	32,000	2	4	E	C
Route 174						
I-80 to Auburn Street	10,400	11,400	2	2	A	B
Auburn Street to Main Street	3,900	4,900	2	2	A	A
Main Street to Rollins Lake Road	5,000	5,000	2	2	C	C
Rollins Lake Road to Nevada County Line	3,700	3,700	2	2	B	B

TABLE 4-18 (Continued)						
Roadway/Segment	ADT		Lanes		LOS	
	1990	2010	1990	2010	1990	2010
STATE HIGHWAYS						
Route 20						
I-80 to Nevada Co Line	2,700	4,000	2	2	B	C
Route 89						
El Dorado Co Line to Pineland Drive	6,600	9,600	2	2	C	D
Pineland Drive to Route 28	14,100	18,600	2	2	C	F1
Route 28 to Squaw Valley	11,800	16,700	2	2	D	E
Squaw Valley to Nevada Co Line	8,800	15,400	2	2	C	D
Route 28						
Route 89 to Tahoe St Park	16,500	25,500	2	2	E	F3+
Tahoe St Park to Lake Forest Dr	14,800	23,900	2	2	D	F2
Lake Forest Dr to Lardin Way	11,600	19,200	2	2	B	F1
Lardin Way to Carnelian Bay Road	9,800	14,000	2	2	A	C
Carnelian Bay Road to Granite Road	11,700	20,000	4	4	A	A
Granite Road to National Avenue	12,700	22,300	4	4	A	A
National Avenue to Route 267	16,800	26,800	4	4	A	C
Route 267 to Coon Street	15,900	21,200	4	4	A	A
Coon Street to Nevada State Line	13,700	18,600	2	2	C	F1
Route 267						
Nevada Co to Tahoe-Truckee Airport Rd	7,100	11,200	2	2	C	D
Tahoe-Truckee Airport Rd to North Star Rd	6,700	10,200	2	2	C	D
North Star Rd to Martis Peak Rd	6,100	8,700	2	2	C	D
Martis Peak Rd to North Ave	8,100	12,400	2	2	D	E
North Ave to Jct Route 28	8,200	11,900	2	2	C	D
PLACER COUNTY UNINCORPORATED						
Nicolaus Road						
Sutter Co to Brewer Road	900	1,900	2	2	A	A
Brewer Rd to South Dowd Road	1,000	3,000	2	2	A	A
South Dowd Rd to Nelson Lane	450	1,450	2	2	A	A
Nelson Lane to Lincoln Limits	1,000	4,000	2	4	A	A
Baseline Road						
Sutter Co to Watt Avenue	2,800	27,800	2	4	A	C
Watt Avenue to Fiddymont Road	4,400	33,400	2	4	A	E
Watt Avenue						
Sacramento County Line to Baseline Rd	2,800	16,400	2	2	A	D
Douglas Boulevard						
Sierra College Blvd to Barton Rd	19,000	30,000	2	4	F1	D
Barton Rd to Auburn-Folsom Rd	19,000	31,000	2	4	F1	D

TABLE 4-18 (Continued)						
Roadway/Segment	ADT		Lanes		LOS	
	1990	2010	1990	2010	1990	2010
PLACER COUNTY UNINCORPORATED						
Sierra College Boulevard						
Sacramento Co to Douglas Blvd	21,000	37,000	2	6	D	B
Douglas Blvd to Rocklin south City Limits	8,400	39,400	2	6	A	C
Loomis north Limits to English Colony Wy	9,000	19,000	2	4	A	A
English Colony Way to Route 193	4,400	17,400	2	2	B	E
Auburn-Folsom Road						
Sacramento Co to Douglas Blvd	15,000	36,000	2	4	C	E
Douglas Blvd to Laird Rd	11,000	14,000	2	4	A	A
Laird Rd to Dick Cook Rd	4,400	7,400	2	2	B	C
Dick Cook Rd to King Rd	4,000	7,000	2	2	B	C
King Road to Newcastle Road	3,900	7,900	2	2	B	C
Newcastle Rd to Auburn south City Limits	2,400	3,400	2	2	A	B
Bell Road						
Route 49 to New Airport Road	13,000	23,000	4	4	A	B
New Airport Rd to I-80	16,000	26,000	2	4	C	B
Bowman Rd						
Auburn Ravine Rd to Bowman U.C.	9,800	10,800	2	2	A	A
Bowman U.C. to Bell Rd	1,400	3,400	2	2	A	A
Bell Rd to Dry Creek Rd	1,750	2,750	2	2	A	A
Foresthill Rd						
Lincoln Way to Old Foresthill Rd	5,000	6,500	2	2	C	C
Old Foresthill Rd to Foresthill limits	5,300	6,300	2	2	C	C
Foresthill limits to Michigan Bluff Road	5,700	7,200	2	2	C	C
Lincoln Way						
Auburn City Limits to Auburn Ravine Rd	5,000	10,000	2	4	A	A
Auburn Ravine Rd to Bowman U.C.	13,500	14,500	2	2	C	D
Luther Road						
Highway 49 to Bowman Road	9,400	11,400	2	2	A	B
Taylor Rd						
Loomis Town Limit to Callison Rd	5,000	8,000	2	2	A	A
Callison Rd to State Route 193	5,000	5,000	2	2	A	A

TABLE 4-18 (Continued)						
Roadway/Segment	ADT		Lanes		LOS	
	1990	2010	1990	2010	1990	2010
PLACER COUNTY UNINCORPORATED						
Wise Road						
Ophir Rd to Crater Hill Rd	1,100	1,100	2	2	A	A
Crater Hill Rd to Mt Vernon Rd	700	3,700	2	2	A	A
Mt Vernon Rd to McCourtney Rd	2,000	6,000	2	2	A	A
McCourtney Rd to Manzanita Rd	2,000	3,000	2	2	A	A
Manzanita Rd to Dowd Rd	200	1,200	2	2	A	A
Dowd Rd to Brewer Rd	100	100	2	2	A	A
Indian Hill Rd						
I-80 to Auburn-Folsom Rd	3,700	9,700	2	2	A	A
Sunset Boulevard						
Route 65 to Industrial	4,000	18,000	4	4	A	A
Industrial Ave to Foothills Blvd	0	10,000	0	4	N/A	A
Foothills Blvd to Fiddymnt Rd	0	15,000	0	4	N/A	A
Whitney Boulevard						
Rocklin west city limits to Industrial Ave	100	15,100	2	4	A	A
Industrial Ave to Foothills Blvd	0	3,000	0	4	N/A	A
Industrial Avenue						
Roseville City limits to Sunset Blvd	2,000	14,000	2	2	A	C
Sunset Blvd to Athens Rd	3,000	23,000	2	2	A	F2
Athens Rd to Hwy 65	1,000	10,000	2	2	A	A
Foothills Boulevard						
Roseville City limits to Sunset Blvd	0	19,000	2	4	N/A	A
Sunset Blvd to Athens Rd	0	25,000	2	4	N/A	B
Athens Rd to Lincoln Crossing	0	19,000	2	4	N/A	A
PFE Road						
Watt Ave to Cook-Riolo Rd	2,600	6,600	2	2	A	A
Cook-Riolo Rd to Roseville City limits	2,900	900	2	2	A	A
Cook-Riolo Road						
Sacramento County Line to Baseline Rd	2,400	10,400	2	2	A	A
Fiddymnt Road						
Baseline Road to Blue Oaks Blvd	1,000	13,000	2	4	A	A
Blue Oaks Blvd to Sunset Blvd West	1,000	5,000	2	2	A	A
Sunset Blvd West to Moore Rd	1,000	8,000	2	2	A	A
Barton Road						
Sacramento County Line to Douglas Blvd	3,000	7,000	2	2	A	A
Douglas Blvd to Olive Ranch Rd	5,000	10,000	2	2	A	A
Olive Ranch Rd to Loomis Town limits	4,000	11,000	2	2	A	A

TABLE 4-18 (Continued)						
Roadway/Segment	ADT		Lanes		LOS	
	1990	2010	1990	2010	1990	2010
PLACER COUNTY UNINCORPORATED						
East Roseville Parkway						
Roseville limits to Barton Rd	1,000	11,000	2	6	A	A
Eureka Road						
Roseville limits to Auburn-Folsom Road	2,200	13,200	2	2	A	C
Mt Vernon Road						
Wise Rd to Joerger Rd	2,000	4,000	2	2	A	A
Laird Road						
Loomis Town limits to Auburn-Folsom Rd	4,000	6,000	2	2	A	A
Moore Road						
Sutter County Line to Dowd Rd	100	100	2	2	A	A
Dowd Rd to Hwy 65	100	2,100	2	2	A	A
North Dowd Road						
Nicolaus Rd to Riosa Rd	300	3,300	2	2	A	A
South Dowd Road						
East Catlett Rd to Nicoulaus Rd	400	2,400	2	2	A	A
East Catlett Road						
Sutter County line to Fiddymnt Rd	100	3,100	2	2	A	A
Riosa Road						
Sutter County line to Route 65	700	700	2	2	A	A
Route 65 to McCourtney Rd	600	600	2	2	A	A
Ophir Road						
Newcastle limits to Auburn limits	1,000	2,000	2	2	A	A
Dry Creek Road						
Joerger Rd to Route 49	2,900	8,900	2	2	A	A
Route 49 to Interstate 80	2,000	5,000	2	2	A	A
Penryn Road						
Taylor Rd to Interstate 80	2,000	6,000	2	2	A	A
Interstate 80 to King Rd	2,000	2,000	2	2	A	A
King Road						
Interstate 80 to Val Verde Rd	3,000	4,000	2	2	A	A
Val Verde Rd to Auburn-Folsom Rd	2,400	3,400	2	2	A	A
Joerger Road						
Mt Vernon Rd to Bell Rd	1,300	6,300	2	2	A	A
Bell Rd to Dry Creek Rd	700	800	2	2	A	A

TABLE 4-18 (Continued)						
Roadway/Segment	ADT		Lanes		LOS	
	1990	2010	1990	2010	1990	2010
CITY OF ROSEVILLE						
Baseline Road/Main Street						
Fiddymont Road to Woodcreek Oaks Blvd	6,000	24,000	2	4	A	B
Woodcreek Oaks Blvd to Foothills Blvd	7,500	19,500	2	4	A	A
Foothills Boulevard						
Blue Oaks Blvd to Pleasant Grove Blvd	7,900	27,900	4	4	A	C
Pleasant Grove Blvd to Junction Blvd	12,500	41,500	4	6	A	B
Junction Blvd to Baseline Road	22,700	48,700	4	6	B	D
Baseline Road to Vineyard Road	17,500	47,500	4	6	A	C
Vineyard Road to Cirby Way	27,700	61,700	4	6	C	F1
Cirby Way						
Foothill Blvd to Riverside Ave	28,300	63,300	4	6	C	F1
Riverside Ave to Sunrise Avenue	30,500	38,500	4	4	D	C
Douglas Boulevard						
Vernon Street to I-80	17,200	21,200	4	4	A	A
I-80 to Sierra College Blvd	36,900	47,900	6	6	B	C
Riverside Avenue						
Douglas Blvd to Darling Way	13,000	20,000	2	2	C	F1
Darling Way to Cirby Way	19,500	26,500	4	4	A	C
Cirby Way to I-80 (EASTBOUND)	49,200	62,200	6	6	E	F1
Vernon/Atlantic						
Douglas Blvd to Grant Street	20,300	29,300	4	4	A	C
Grant Street to I-80	14,700	26,700	2	4	D	C
Sunrise Avenue						
Sacramento Co to Cirby Wy	30,000	47,000	4	6	D	D
Cirby Wy to Douglas Boulevard	26,500	37,500	4	6	C	B
Washington Boulevard						
Route 65 to Industrial Blvd	4,200	28,200	2	4	A	C
Industrial Blvd to Junction Blvd	8,400	25,400	2	4	A	B
Junction Blvd to Oak Street	31,000	31,000	4	4	D	D
Blue Oaks Boulevard						
Route 65 to Foothill Blvd	9,000	30,000	2	4	A	C
Foothill Blvd to Woodcreek Oaks Blvd	0	31,000	0	4	N/A	C
Woodcreek Oaks Blvd to Fiddymont Rd	0	14,000	0	2	N/A	B

TABLE 4-18 (Continued)						
Roadway/Segment	ADT		Lanes		LOS	
	1990	2010	1990	2010	1990	2010
CITY OF ROSEVILLE						
Pleasant Grove Boulevard						
Rocklin south city limits to Route 65	0	20,000	0	4	N/A	A
Route 65 to Roseville Pkwy	0	41,000	0	6	N/A	B
Roseville Pkwy to Washington Blvd	0	47,000	0	6	N/A	C
Washington Blvd to Foothill Blvd	0	51,000	0	6	N/A	D
Foothill Blvd to Woodcreek Oaks Blvd	0	38,000	0	6	N/A	B
Woodcreek Oaks Blvd to Fiddymnt Rd	0	9,000	0	2	N/A	A
Junction Boulevard						
Washington Blvd to Foothill Blvd	8,900	16,500	4	4	A	A
Foothill Blvd to Woodcreek Oaks Blvd	2,700	13,400	4	4	A	A
Woodcreek Oaks Blvd to Fiddymnt Rd	0	24,000	0	2	N/A	F2
Roseville Parkway						
Sierra College Blvd to Douglas Blvd	1,400	17,000	4	4	A	A
Douglas Blvd to Rocky Ridge	1,400	34,900	6	6	A	A
Rocky Ridge to Sunrise Ave	0	36,000	0	6	N/A	A
Sunrise Ave to Harding Blvd	0	52,000	0	6	N/A	D
Harding Blvd to Pleasant Grove Blvd	0	45,000	0	6	N/A	C
Pleasant Grove Blvd to Washington Blvd	0	20,000	0	6	N/A	A
Washington Blvd to Foothill Blvd	0	20,000	0	4	N/A	A
CITY OF ROCKLIN						
Sierra College Boulevard						
Rocklin south Limits to Rocklin Road	8,400	39,400	2	6	A	B
Rocklin Road to I-80	9,200	42,200	2	6	A	C
Sunset Boulevard						
Pacific Avenue to Whitney Boulevard	16,600	28,600	4	6	A	A
Whitney Boulevard to Stanford Ranch Rd	7,600	30,600	4	6	A	A
Rocklin Road						
Pacific Avenue to I-80	12,200	30,200	4	4	A	D
I-80 to Sierra College Blvd	5,200	39,200	4	6	A	C
Pacific Avenue						
Rocklin City Limits to Sunset Boulevard	18,000	31,000	4	6	A	A
Sunset Blvd to Rocklin Road	12,800	34,800	4	4/6	A	C

TABLE 4-18 (Continued)						
Roadway/Segment	ADT		Lanes		LOS	
	1990	2010	1990	2010	1990	2010
CITY OF ROCKLIN						
Pacific Avenue (Continued)						
Rocklin Rd to Sierra College Blvd	9,500	18,500	4	4	A	A
Blue Oaks Boulevard						
Route 65 to Sunset Blvd	0	8,000	0	4	N/A	A
West Oaks Boulevard						
Sunset Blvd to Lonetree Blvd	0	10,000	0	4	N/A	A
Lonetree Boulevard						
Blue Oaks Blvd to West Oaks Blvd	0	12,000	0	4	N/A	A
Stanford Ranch Road						
Route 65 to Fairway Drive	15,300	32,000	2	6	D	A
Fairway Drive to Sunset Blvd	8,200	34,200	4	6	A	B
Sunset Blvd to Park Dr	8,100	13,000	6	6	A	A
Park Dr to West Oaks Blvd	10,600	11,000	6	6	A	A
CITY OF LINCOLN						
Nicolaus Road						
Lincoln Limits to Aviation	800	3,100	2	2	A	A
Aviation to Joiner	700	2,800	2	4	A	A
Joiner to Route 65	3,000	13,000	2	2	A	C
Foothills Boulevard						
Lincoln Crossing to Route 65	0	23,000	0	4	N/A	B
Eastlake Boulevard						
Route 65 to Route 193	0	19,000	0	4	N/A	A
Lincoln Airport Drive						
Aviation Blvd to Nicolaus Rd	0	4,000	0	2	N/A	A
Lincoln Parkway						
Nicolaus Rd to Moore Rd	0	16,000	2	4	N/A	A
Moore Rd to Route 65	0	9,000	0	4	N/A	A
Route 65 to 'D' Street	0	5,000	0	2	N/A	A
TOWN OF LOOMIS						
Sierra College Boulevard						
I-80 to King Road	6,200	19,200	2	4	A	A
King Road to Rocklin Limits	6,000	15,000	2	4	A	A

TABLE 4-18 (Continued)						
Roadway/Segment	ADT		Lanes		LOS	
	1990	2010	1990	2010	1990	2010
TOWN OF LOOMIS						
Taylor Road						
Sierra College Blvd to Horseshoe Bar Road	9,000	16,000	2	2	A	D
Horseshoe Bar Rd to King Rd	13,200	19,200	2	4	C	A
King Rd to Loomis Town Limits	6,600	10,600	2	2	A	A
King Road						
Sierra College Blvd to Taylor Road	6,600	5,600	2	2	A	A
Taylor Road to Loomis Town Limits	4,100	7,100	2	2	A	A
Horseshoe Bar Road						
Taylor Road to I-80	8,000	11,000	2	2	A	A
I-80 to Loomis Town Limits	2,000	3,000	2	2	A	A
CITY OF AUBURN						
Auburn-Folsom Road						
Auburn Limits to Maidu Rd	8,000	16,000	2	2	A	D
Maidu Rd to Lincoln Way	13,000	20,000	2	4	C	A
Lincoln Way						
El Dorado Street to Oak Street	11,600	13,600	2	2	B	C
Oak Street to Auburn City Limits	8,100	11,100	2	4	A	A
Nevada Street						
I-80 to Fulweiler Avenue	8,000	15,000	2	2	A	D
Fulweiler Avenue to Palm Avenue	11,900	19,900	2	2	B	F1
Elm Avenue						
Highway 49 to I-80	15,600	18,600	4	4	A	A
Auburn Ravine Road						
Fulweiler Avenue to Palm Avenue	6,000	9,000	2	2	A	A
Palm Avenue to Auburn City Limits	6,600	7,600	2	2	A	A

ADT= Average daily trips.

IMPLICATIONS OF THE GENERAL PLAN LAND USE DIAGRAM

Under the *General Plan Land Use Diagram*, the number of vehicle trips generated in Placer County is expected to approximately double 1990 levels by 2010 (see Table 4-11). The "2010 Base Transportation System" (described in Tables 4-3 and 4-4) includes a large number of roadway improvements within Placer County, yet the projected increase in travel demand would place a significant burden on the County's roadway system. Table 4-18 compares existing traffic volumes, lanes and levels of service to projected 2010 traffic volumes, lanes and levels of service under the *General Plan* assuming the "2010 Base Transportation System." This table indicates that a number of roadways would operate at D, E, or F levels of service.

Table 4-18 represents traffic volumes and levels of service on an average weekday, which are appropriate traffic levels for evaluating operating conditions on the roadways in south and central Placer County. The major roadways serving the Sierra and Tahoe Basin areas of Placer County (i.e., State highways and ski area access roadways), however, experience substantial traffic peaks on some days during both the winter and summer months due to recreation travel.

Due to this fluctuation in traffic flow, a selection must be made of the specific hourly traffic volumes to be used in evaluating the adequacy of the roadways in the eastern portion of the county. A roadway designed to give an acceptable level of service on an "average day" peak hour may be less than adequate on many occasions when higher demand exists. On the other hand, a roadway designed to provide an adequate level of service on the busiest hour of the year would have substantial excess capacity at other times, which is an economically (and potentially environmentally) infeasible situation. The selection of an appropriate "design hour" to be served is thus a compromise between annual service provided and the cost and impacts of improvements.

It is a general practice in the U.S. to strive for acceptable levels of service in rural (non-commute) areas for a "design hour" between the 30th and 50th highest hourly volume of the year. In their annual "Traffic Volumes on State Highways," Caltrans reports traffic volumes for a "peak hour." In urban and suburban areas, their reported peak hour volumes normally occur every weekday. In these areas 200 or more hours will be about the same as the "peak hour" and only a few hours of the year will have greater volumes. On roadways with large seasonal fluctuations in traffic (such as those in the Sierra and Tahoe Basin areas of Placer County), Caltrans' reported peak hour is the hour near the maximum for the year, but excluding a few (30 to 50 hours) that are exceedingly high and are not typical of the frequency of the high hours occurring during the peak season(s).

Table 4-19 shows the existing and projected 2010 peak hour volumes for the State highways in the Sierra and Tahoe Basin areas of Placer County. In this table, the "peak hour" reflects the 30th to 50th highest hour of the year. The 1992 peak hour volume reflects traffic counts from Caltrans. The 2010 peak hour was estimated through a "trend" analysis using the traffic count history on the State highways between 1970 and 1992.

Table 4-19 also provides estimates of existing and 2010 levels of service during the peak hour (the 30th to 50th highest hour) on State highways in the eastern portion of the county. It indicates that some of these highways currently operate at LOS "F" during the peak hour. By 2010, most of the State highways in the Sierra and Tahoe Basin areas of the county are projected to operate at LOS "F" during the peak hour.

Travel forecasts for 2010 were not prepared for the non-State highways in the Sierra and Tahoe Basin areas of Placer County. Currently there are no significant level of service problems on an average weekday for the County's roadways in these areas. With limited projected growth in population and employment in the Tahoe Basin and Sierra, (as shown in Chapter 2 of this EIR), it is unlikely that there will be significant level of service problems on the County's roadways in these areas by 2010 (except due to a potential concentration of growth in one location).

During peak recreational travel hours, however, there are a number of County roadways that currently operate at unacceptable levels of service (LOS D, E, or F); and traffic congestion on many of these roadways during these peak recreational hours will likely worsen due to both population and employment growth and increases in recreational travel. The roadways that currently experience the worse traffic congestion during recreational peak hours are the access roadways to the major ski resorts, including:

- Squaw Valley Road
- Alpine Meadows Road
- Northstar Drive

Without mitigation measures, the frequency and severity of traffic congestion on these ski resort access roadways would likely increase.

TABLE 4-19

**ESTIMATED TRAFFIC VOLUMES AND LEVELS OF SERVICE
For 30th to 50th Highest Hour of the Year on Roadways in the Tahoe Basin**

Highway Segment	Peak Hr/Peak Direction Volumes		Lanes Per Direction		Peak Hr/Peak Direction LOS	
	1992	2010	1992	2010	1992	2010
Interstate 80						
Magra to Gold Run	2,268	3,402	2	2	E	F3+
Gold Run to Mote Vista	2,205	3,087	2	2	D	F2
Monte Vista to Alta Road	2,142	3,087	2	2	D	F2
Alta Road to Baxter	2,142	3,276	2	2	D	F2
Baxter to Drum Forebay Road	2,142	2,772	2	2	D	F1
Drum Forebay Road to Blue Canyon	2,142	3,087	2	2	D	F2
Blue Canyon to Putts Lake	2,142	3,024	2	2	D	F2
Putts Lake to Carpenter Flat	2,142	3,087	2	2	D	F2
Carpenter Flat to Yuba Gap (Nevada County)	2,142	3,150	2	2	D	F2
Nevada County line to Cisco Grove	2,583	3,780	2	2	F1	F3+
Cisco Grove to Hampshire Rocks	2,520	3,717	2	2	F1	F3+
Hampshire Rocks to King vale	2,489	3,654	2	2	F1	F3+
Route 20						
I-80 to Nevada County Line	330	600	1	1	C	D
Route 89						
El Dorado County line to Pineland Drive	1,200	2,175	1	1	D	F1
Pineland Drive to Route 28	1,350	1,500	1	1	E	F1

TABLE 4-19 (Continued)

Highway Segment	Peak Hr/Peak Direction Volumes		Lanes Per Direction		Peak Hr/Peak Direction LOS	
	1992	2010	1992	2010	1992	2010
Route 89 (Continued)						
Route 28 to Squaw Valley	1,163	1,575	1	1	D	E
Squaw Valley to Nevada County line	1,163	1,500	1	1	D	E
Route 28						
Route 89 to Tahoe State Park	1,200	1,560	1	1	F1	F3+
Tahoe State Park to Lake Forest Drive	1,020	1,440	1	1	E	F2
Lake Forest Drive to Lardin Way	870	1,260	1	1	D	F1
Lardin Way to Carnelian Bay Road	720	960	1	1	B	D
Carnelian Bay Road to Granite Road	900	1,380	2	2	A	B
Granite Road to National Avenue	990	1,620	2	2	A	C
National Avenue to Route 267	1,320	2,160	2	2	A	E
Route 267 to Coon Street	1,260	1,320	2	2	A	A
Coon Street to Nevada State Line	1,080	1,200	1	1	E	F1
Route 267						
Nevada County to Tahoe-Truckee Airport Road	660	840	1	1	D	D
Tahoe-Truckee Airport Road to North Star Road	576	1,020	1	1	C	E
North Star Road to Martis Peak Road	552	720	1	1	D	D
Martis Peak Road to North Avenue	600	1,140	1	1	D	E
North Avenue to Junction Route 28	500	1,000	1	1	C	E

GENERAL PLAN POLICY RESPONSE

The Circulation Plan Diagram and Policy 3.A.1 establishes a traffic circulation system to serve the General Plan. In addition, the following policies address the traffic implications of the *Land Use Diagram*.

Policies

- 3.A.2. *Streets and roads shall be dedicated, widened, and constructed according to the roadway design and access standards generally defined in Section I of this Policy Document and, more specifically, in community plans and the County's Highway Deficiencies Report. Exceptions to these standards may be necessary but should be kept to a minimum and shall be permitted only upon determination by the Public Works Director that safe and adequate public access and circulation are preserved by such exceptions.*
- 3.A.3. *The County shall require that roadway rights-of way be wide enough to accommodate the travel lanes needed to carry long-range forecasted traffic volumes (beyond 2010), as well as any planned bikeways and required drainage, utilities, landscaping, and suitable separations. Minimum right-of-way criteria for each class of roadway in the county are specified in Part I of this Policy Document (see page 29).*
- 3.A.4. *On arterial roadways and thoroughfares, intersection spacing should be maximized. Driveway encroachments along collector and arterial roadways shall be minimized. Access control restrictions for each class of roadway in the county are specified in Part I of this Policy Document (see page 29).*
- 3.A.5. *Through-traffic shall be accommodated in a manner that discourages the use of neighborhood roadways, particularly local streets. This through-traffic, including through truck traffic, shall be directed to appropriate routes in order to maintain public safety and local quality of life.*
- 3.A.7. *The County shall develop and manage its roadway system to maintain the following minimum levels of service (LOS).*
- a. *LOS "C" on rural roadways, except within one-half mile of state highways where the standard shall be LOS "D".*
 - b. *LOS "C" on urban/suburban roadways except within one-half mile of state highways where the standard shall be LOS "D".*

The County may allow exceptions to these level of service standards where it finds that the improvements or other measures required to achieve the LOS standards are unacceptable based on established criteria. In allowing any exception to the standards, the County shall consider the following factors:

- *The number of hours per day that the intersection or roadway segment would operate at conditions worse than the standard.*
- *The ability of the required improvement to significantly reduce peak hour delay and improve traffic operations.*
- *The right-of-way needs and the physical impacts on surrounding properties.*
- *The visual aesthetics of the required improvement and its impact on community identity and character.*

- *Environmental impacts including air quality and noise impacts.*
- *Construction and right-of-way acquisition costs.*
- *The impacts on general safety.*
- *The impacts of the required construction phasing and traffic maintenance.*
- *The impacts on quality of life as perceived by residents.*
- *Consideration of other environmental, social, or economic factors on which the County may base findings to allow an exceedance of the standards.*

Exceptions to the standards will only be allowed after all feasible measures and options are explored, including alternative forms of transportation.

- 3.A.8. *The County's level of service standards for the State highway system shall be no worse than those adopted in the Placer County Congestion Management Program (CMP).*
- 3.A.9. *The County shall work with neighboring jurisdictions to provide acceptable and compatible levels of service and joint funding on the roadways that may occur on the circulation network in the Cities and the unincorporated area.*
- 3.A.10. *The County shall strive to meet the level of service standards through a balanced transportation system that provides alternatives to the automobile.*
- 3.A.11. *The County shall plan and implement a complete road network to serve the needs of local traffic. This road network shall include roadways parallel to regional facilities so that the regional roadway system can function effectively and efficiently. Much of this network will be funded and/or constructed by new development.*
- 3.A.12. *The County shall require an analysis of the effects of traffic from all land development projects. Each such project shall construct or fund improvements necessary to mitigate the effects of traffic from the project. Such improvements may include a fair share of improvements that provide benefits to others.*
- 3.A.13. *The County shall secure financing in a timely manner for all components of the transportation system to achieve and maintain adopted level of service standards.*
- 3.A.14. *The County shall assess fees on new development sufficient to cover the fair share portion of that development's impacts on the local and regional transportation system. Exceptions may be made when new development generates significant public benefits (e.g., low income housing, needed health facilities) and when alternative sources of funding can be identified to offset foregone revenues.*

Programs

- 3.1. *The County shall review and revise as necessary its roadway design standards to ensure consistency with Part I of this Policy Document. Such standards should include right-of-way dedication requirements for new development to accommodate long-range forecasted traffic volumes (beyond 2010).*
- 3.2. *The County shall prepare and adopt a Capital Improvement Program (CIP) that includes transportation improvements designed to achieve adopted level of service standards based on*

a horizon of at least 20 years. The CIP should be updated at least every 5 years, or concurrently with the approval of any significant modification of the land use allocation assumed in the Placer County travel model.

- 3.3. The County shall prepare and adopt a traffic fee allocation process ordinance implementing traffic mitigation fees for the Capital Improvement Program. The fee structure may incorporate or replace existing local traffic fees.
- 3.4. The County shall continue to identify and pursue appropriate new funding sources for transportation improvements.

These policies and programs provide for the development of roadways to serve future needs. The policies require the reservation of roadway rights-of-way to accommodate long-range forecasted travel volumes. The policies also require the development of roadways according to design and access standards to serve needed roadway access and mobility functions

Policy 3.A.7 establishes a level of service standard for all roadways in the County, including a lower standard for those urban or rural roadways that are within one-half mile of State highways than elsewhere in the County (LOS D versus LOS C). The policy allows exceptions to the standard where the County finds that improvements required to achieve the LOS standard are unacceptable based on established criteria. This policy is implemented through Implementation Programs 3.2 and 3.3 which include a Capital Improvement Program and a traffic fee allocation process. Policies also provide for consistency of the General Plan's level of service standards with those in the Placer County Congestion Management Program.

Policies address traffic impacts by requiring new development to identify and fund improvements to the local and regional transportation system and to pursue other funding sources for transportation improvements.

The Policy Document also promotes the use of transit and non-automobile forms of transportation (bicycle and pedestrian) through land use and development patterns and also includes policies to promote transportation systems management. These are discussed in subsequent sections of this chapter.

IMPACTS

Table 4-18 provides the 2010 levels of service that would result from the *Land Use Diagram* under the 2010 Base Transportation System. The roadways that would not achieve proposed level of service policy for Placer County (or City level of service policies) are shown in Table 4-20.

A "2010 Mitigated Transportation System" was developed in an attempt to achieve the proposed level of service policy on all roadways identified. The potential improvements on this "mitigated" system (beyond those in the "2010 Base Transportation System") are shown on Table 4-21. Potential improvements were identified on the State highway system and on roadways in the unincorporated areas of Placer County, but not on roadways within incorporated areas (over which Placer County does not have jurisdiction).

In addition to roadway improvements, several major transit improvements in the I-80 corridor were also identified to help achieve the proposed level of service policy. These transit improvements, which are incorporated into policies in the *General Plan*, include an extension of light rail service to Placer County (Policy 3.B.5) and implementation of commuter rail service between Colfax and Davis (Policy 3.B.6).

If the transportation improvements outlined under the "2010 Mitigated Transportation System" are included in a fully funded Capital Improvement Program for the County (Implementation Program 3.3) and

implemented by 2010, then the proposed level of service policy would be met on all the non-State highways in the unincorporated areas of the County under the *General Plan*. The projected 2010 population and employment levels under the *General Plan* (including the estimated growth in the incorporated areas of the County and growth in the rest of the metropolitan area) would result in significant impacts on some State highways as well as some roadways in the incorporated areas of the County without further mitigation. The roadways that would not meet local level of service standards under the "2010 Mitigated Transportation System" are shown in Table 4-22.

Table 4-23 summarizes the level of service that would be provided on an average workday in 2010 on Placer County's major roadway system under the *General Plan*. It indicates that with the "2010 Mitigated Transportation System" about 4.8 percent of the "lane miles" on the County's roadway system would operate at LOS "F" conditions during peak hours on an average weekday, nearly all of which would occur on State highways. On the 30th to 50th highest hours of the year in 2010, most of the State highways in the Sierra and Tahoe Basin areas would operate at LOS "F" with the "2010 Mitigated Transportation System".

There are no funding sources for a number of the roadway capacity improvements included in the 2010 Mitigated Transportation System (including those outlined in Table 4-4 and 4-21). If funding sources are not identified for some or all of the improvements and implemented through a Capital Improvement Program, then there will be significant impacts on some or all of the roadways identified in Table 4-20.

MITIGATION MEASURES

A Capital Improvement Program containing the projects in the "2010 Mitigated Transportation System" (if fully funded and implemented by 2010) would provide acceptable levels of service on an average weekday in 2010 under the *General Plan* on the roadways that are under Placer County's jurisdiction. Additional mitigation, however, would be needed to allow some State highway and roadways within incorporated areas (shown in Table 4-22) to operate at acceptable levels of service on an average weekday in 2010. Under the 2010 Mitigated Transportation System, level of service "F" conditions on I-80 in Placer County for an average weekday peak hour would be limited to the sections of freeway between Riverside Avenue and Atlantic Street in the Roseville area and between Penryn and State Route 193. Further mitigation measures to resolve the anticipated 2010 congestion levels, as well as accommodate travel growth beyond 2010, could involve a variety of multi-modal solutions in the I-80 corridor. This includes transit, high occupancy vehicle (HOV) lanes, and/or transportation demand management (TDM) measures within Placer County as well as Sacramento County. Program 3.17 calls for the County to participate in a multi-modal study of the I-80 corridor that will explore improvements to passenger rail service and HOV facilities to maximize the person carrying capacity of the corridor.

Mitigation measures for the State highways in the Tahoe Basin, shown in Table 4-20, should be developed in a coordinated effort with TRPA and Caltrans. Such mitigation measures could include widenings of State Routes 28 and 89 from 2 lanes to 4 lanes and/or substantial transit and trip reduction measures. Similarly, mitigation measures were not defined for incorporated areas in the County, since the County does not have jurisdiction over roadways within the cities.

Some County roadways in the Sierra and Tahoe Basin area would experience significant traffic congestion during peak recreational hours, especially access roadways to the major ski resorts. For the ski area access roadways, a very effective and practical management device for reducing peak traffic loading is to keep congestion off of the road network by confining it to the ski area parking lots. Traffic flow could then be "metered" out of the parking areas onto the access roadways by traffic controllers and matched to

available capacity. This approach could also allow a priority to be given to transit vehicles. For this metering approach to work properly, it is necessary for the persons controlling traffic at the parking lot to be in radio contact with persons controlling the intersections of the access roadways to the State highway system.

Such control could eventually become part of a communications network that could include the Squaw Valley Road/SR 89 intersection, the Alpine Meadows Road/SR 89 intersection, the Tahoe City "Y", Truckee, and other points in the system where manual or signalized traffic control is employed. Such a communications system could be of value in maintaining desired levels of service and/or optimizing available roadway and intersection capacity.

Other potential mitigation measures for recreational peak hour traffic on the ski resort access roadways might include:

- Strong transit incentives (and/or disincentives for automobile use)
- Park and ride lot areas for transit in Truckee and the North Shore area
- Limitation on ticket sales to persons other than residents or those arriving by transit
- Phased shut-downs of ski lifts (or entire ski areas)

ANALYSIS OF 2040 CONDITIONS

Traffic forecasts and a level of service analysis was conducted for 2040 conditions under the *General Plan* assuming the 2040 Base Transportation System (described in Section 4.2 and Table 4-7). This analysis indicated that a large number of roadways would not operate at an acceptable level of service in 2040 without further mitigation measures. Table 4-25 summarizes the 2040 level of service analysis and shows that about 27 percent of the county's lane-miles would operate at LOS "F" conditions under the 2040 Base Transportation System. Currently, less than one percent of the County's lane-miles operate at LOS "F" conditions. This analysis demonstrates the following:

- The need to define and implement programs/facilities that would reduce travel demand, even if the full effects of such measures take many years to have a significant impact.
- In developed areas (including those that would be developed in the next 20 years) additional roadway widenings would be required to maintain level of service standards unless other effective measures could be defined and implemented.
- In major new projects, right-of-way for new roadways and/or transit corridors should be preserved.

Table 4-24 also includes a general indication of the roadway lanes needed to achieve level of service standards based on 2040 travel demand with the 2040 Base Transportation System. The required lanes may not be feasible to implement and alternative mitigations may be possible (such as new or widened parallel roadways, grade separations, significant transit and/or travel demand management measures, etc.). The 2040 lane needs are intended only to guide right-of-way preservation in future planning efforts.

The Circulation Diagram shows several "post 2010" roadways that the 2040 analysis indicated would be needed to accommodate long-term growth under the *General Plan*. These include the following:

- Additional east-west roadway capacity in West Placer County would be needed to link developing areas of Roseville, Rocklin, Lincoln and unincorporated areas in western Placer County with Sutter

County and Sacramento County (via Route 70/99, Watt Avenue, and other north-south roadways). Preservation of right-of-way for potential extensions such as Sunset Boulevard and Pleasant Grove Boulevard (or Blue Oaks Boulevard) is proposed to accommodate long-term growth in South Placer County.

- An east-west connection between Route 65 at Whitney Boulevard and Sierra College Boulevard at Clover Valley is included since it is currently under consideration by the City of Rocklin to accommodate potential long-term development in the north portion of their sphere of influence.
- A north-south connector between Lincoln and Rocklin on the east side of Route 65 is shown to accommodate short-distance travel between these communities without having to use Route 65. This roadway, which would run parallel with Route 65, would be necessary with the development of the proposed Twelve Bridges project south of Lincoln and the north Rocklin area.
- The extension of Rocklin Road was included to accommodate future east-west demand in the Loomis, Rocklin, and Granite Bay areas. This facility is included in the Granite Bay Community Plan.
- The Route 65 Bypass around the west side of Lincoln, for which more than one potential alignment exist.
- The Route 49 Bypass from north of Bell Road to I-80.

With these post-2010 roadways, some of the additional 2040 roadway needs in both the unincorporated and incorporated areas of the County (shown in Table 4-24) may not be required.

TABLE 4-20

**ROADWAYS NOT MEETING LEVEL OF SERVICE STANDARDS
2010 Base Transportation System**

Roadway/Segment	Lanes		Level of Service		Level of Service Standard
	1990	2010	1990	2010	
<u>State Highways</u>					
I-80					
Riverside Ave to Atlantic St	6	6	D	F1	E
Route 65 to Route 49	6	6	C	F1	E
Route 49					
Palm Rd to Bell Rd	4	4	E	F2	E
Route 65					
Industrial Blvd to Eastlake Drive	2	2	C	F1	E
Lincoln south city limits to Wise	2	2	C	F2	E
Route 89					
Pineland Dr to Route 28	2	2	E	F1	E
Route 28					
Route 89 to Tahoe State Park	2	2	D	F3+	E
Tahoe State Pk to Lake Forest Dr	2	2	B	F2	E
Lake Forest Dr to Lincoln Way	2	2	C	F1	E
Coon St to Nevada State Line	2	2	C	F1	E
<u>Placer County</u>					
Douglas Boulevard					
Sierra College Blvd to Barton Rd	2	4	F1	D	C
Barton Rd to Auburn-Folsom Rd	2	4	F1	D	C
Sierra College Boulevard					
English Colony to Route 193	2	2	B	E	C
Baseline Road					
Watt Avenue to Fiddymment Rd	2	4	A	E	C
Auburn-Folsom Rd					
Sacramento Co to Douglas Blvd	2	4	C	E	C
Lincoln Way					
Auburn Ravine Rd to Bowman UC	2	2	C	D	C
Watt Avenue					
Sacramento Co to Baseline Rd	2	2	A	D	C
Industrial Avenue					
Sunset Blvd to Athens Rd	2	2	A	F2	C
<u>City of Roseville</u>					
Foothills Boulevard					
Junction Blvd to Baseline Rd	4	6	B	D	C
Vineyard Rd to Cirby Way	4	6	C	F1	C

TABLE 4-20 (Continued)					
Roadway/Segment	Lanes		Level of Service		Level of Service Standard
	1990	2010	1990	2010	
<u>City of Roseville (Continued)</u>					
Sunrise Avenue					
Sacramento County to Cirby Way	4	6	D	D	C ¹
Washington Blvd					
Juntion Blvd to Oak Street	4	4	D	D	C
Pleasant Grove Blvd					
Washington Blvd to Foothill Blvd	0	6	N/A	D	C
Roseville Parkway					
Sunrise Ave to Harding Blvd	0	6	N/A	D ²	C
Cirby Way					
Foothills Blvd to Riverside Ave	4	6	C	F1 ²	C
Riverside Ave					
Douglas Blvd to Darling Way	2	2	C	F1	C
Cirby Way to I-80	4	6	E	F1 ²	C
Junction Boulevard					
Woodcreek Oaks to Fiddymnt Rd	0	2	N/A	F2	C
<u>City of Rocklin</u>					
Rocklin Road					
Pacific Ave to I-80	4	4	A	D	C ³
<u>Town of Loomis</u>					
Taylor Road					
Sierra College Blvd to Horseshoe Bar Rd	2	2	A	D	C
<u>City of Auburn</u>					
Auburn-Folsom Road					
Auburn Limits to Maiden Rd	2	2	A	D	C
Nevada Street					
I-80 to Fulweiler Ave	2	2	A	D	C
Fulweiler Ave to Palm Ave	2	2	B	F1	C

1. Roseville's level of service policy allows LOS D at Cirby Way/Sunrise Avenue intersection.
2. Grade separated at Roseville Parkway/Harding Blvd and Riverside Ave/Cirby Way would provide better LOS based on intersection level of service.
3. Rocklin's level of service policy allows LOS D within 1/2 mile of State Highways.

TABLE 4-21

**POTENTIAL IMPROVEMENTS
2010 Mitigated Transportation System**

Jurisdiction	Roadway/Corridor	Limits	Potential Improvement
Caltrans	I-80	<ul style="list-style-type: none"> • Sacramento County to Sierra College Blvd • Penryn to Route 49 	<ul style="list-style-type: none"> Construct HOV lanes¹ Construct eastbound truck climbing lane²
	Route 28	<ul style="list-style-type: none"> • Tahoe City • at Dollar Hill 	<ul style="list-style-type: none"> Remove on-street parking² Construct westbound passing lane²
	Route 65	<ul style="list-style-type: none"> • Blue Oaks to Industrial • Industrial to Lincoln Parkway • Lincoln Parkway to Route 193 	<ul style="list-style-type: none"> Improve to 4 lane freeway¹ Widen to 6 lane arterial³ Widen to 4 lanes³
	Route 49	Palm Avenue to Bell Road	Widen to 6 lanes ¹
Regional	Route 89	at Route 28	Realign 89 at Tahoe City Wye ²
	Route 267	at Brockway Summit	Construct northbound passing lane ²
Placer County	I-80 Corridor	<ul style="list-style-type: none"> • Extend light rail to Roseville • Commuter rail service - Colfax to Davis 	
	Auburn-Folsom Road	<ul style="list-style-type: none"> • Sacramento County to Douglas Blvd 	Widen to 6 lanes
	Baseline Road	Watt Avenue to Fiddymont	Widen to 6 lanes
	Douglas Blvd	Sierra College Blvd to Auburn-Folsom Road	Widen to 6 lanes
	Sierra College Boulevard	English Colony Way to Route 193	Widen to 4 lanes
	Lincoln Way	at Auburn Ravine Road	Improve intersection
	Industrial Avenue	Sunset Blvd to Athens Road	Widen to 4 lanes
	Watt Avenue	Sacramento Co to Baseline Road	Widen to 4 lanes

1. Included in PCTC's Project List for the 1993 Regional Transportation Plan, but without assured funding.
2. Included in TRPA's 1992 Regional Transportation Plan - Air Quality Plan.
3. Included in City of Lincoln's "Public Facilities Element".

TABLE 4-22

**ROADWAYS NOT MEETING LEVEL OF SERVICE STANDARDS
2010 Mitigated Transportation System**

Roadway/Segment	Lanes		LOS		Level of Service Standard
	1990	2010	1990	2010	
<u>State Highways</u>					
I-80					
Riverside Ave to Atlantic St	6	8 ¹	D	F1	E
Penryn to Route 193	6	7	C	F1	E
Route 28					
Route 89 to Tahoe State Park	2	2	E	F3+	E
Tahoe State Pk to Lake Forest Dr	2	2	D	F2	E
Lake Forest Dr to Lincoln Way	2	2	B	F1	E
Coon St to Nevada State Line	2	2	C	F1	E
Route 89					
Pineland Dr to Route 28	2	2	C	F1	E
<u>City of Roseville</u>					
Sunrise Ave					
Sacramento City to Cirby Way	4	6	D	D	C ²
Washington Blvd					
Junction Blvd to Oak Street	4	4	D	D	C
Roseville Parkway					
Sunrise Ave to Harding Way	0	6	N/A	D ³	C
Foothill Blvd					
Vineyard Rd to Cirby Way	4	6	C	E	C
Cirby Way					
Foothills Blvd to Riverside Ave	4	6	C	F1 ²	C
Riverside Ave					
Cirby Way to I-80	4	6	E	E ³	C
Junction Boulevard					
Woodcreek Oaks to Fiddymnt Rd	0	2	N/A	E	C
<u>City of Rocklin</u>					
Pacific/Taylor Street					
Rocklin South City Limits to Rocklin Road	4	4	A	D	C ⁴
<u>Town of Loomis</u>					
Sierra College Blvd to Horseshoe Bar Rd	2	2	A	D	C
<u>City of Auburn</u>					
Auburn Limits to Maidu Rd	2	2	A	D	C
Nevada Street					
I-80 to Fulweiler	2	2	A	D	C
Fulweiler Ave to Palm Ave	2	2	B	F1	C

1. Includes 2 HOV lanes.
 2. Level of service D standard at Cirby Way/Sunrise intersection.
 3. Grade separated at Roseville Parkway/harding Blvd and Riverside Ave/Cirby Way would provide better LOS based on intersection level of service.
 4. Level of service D standard within 1/2 mile of State Highways.

TABLE 4-23

**LANE MILES BY LEVEL OF SERVICE FOR YEAR 2010
Placer County Major Roadways**

Area	LOS	Existing		Proposed Project with 2010 Base		Proposed Project with 2010 Mitigated	
		Lane Miles	Percent	Lane Miles	Percent	Lane Miles	Percent
South Placer	A-C	425.2	89.7%	553.0	78.0%	624.2	82.1%
	D-E	42.8	9.0%	97.8	13.8%	110.4	14.5%
	F	6.0	1.3%	58.4	8.2%	26.0	3.4%
	<i>Subtotal</i>	<i>474.0</i>		<i>709.2</i>		<i>760.6</i>	
Auburn-Foothills	A-C	243.4	92.2%	188.8	65.8%	198.8	66.9%
	D-E	20.6	7.8%	63.4	22.1%	74.0	24.9%
	F	0.0	0.0%	34.6	12.1%	24.2	8.2%
	<i>Subtotal</i>	<i>264.0</i>		<i>286.8</i>		<i>297.0</i>	
Lower Sierra	A-C	81.2	100.0%	92.6	100.0%	92.6	100.0%
	D-E	0.0	0.0%	0.0	0.0%	0.0	0.0%
	F	0.0	0.0%	0.0	0.0%	0.0	0.0%
	<i>Subtotal</i>	<i>81.2</i>		<i>92.6</i>		<i>92.6</i>	
Sierra/Tahoe	A-C	190.6	90.6%	94.0	44.7%	94.0	44.7%
	D-E	19.8	9.4%	101.6	48.3%	101.6	48.3%
	F	0.0	0.0%	14.8	7.0%	14.8	7.0%
	<i>Subtotal</i>	<i>210.4</i>		<i>210.4</i>		<i>210.4</i>	
Total	A-C	940.4	91.3%	928.4	71.5%	1009.6	74.2%
	D-E	83.2	8.1%	262.8	20.2%	286.0	21.0%
	F	6.0	0.6%	107.8	8.3%	65.0	4.8%
	<i>Subtotal</i>	<i>1029.6</i>		<i>1299.0</i>		<i>1360.6</i>	

TABLE 4-24

2040 ROADWAYS NOT MEETING LEVEL OF SERVICE STANDARDS
2040 Base Transportation System

ROADWAYS OPERATING AT LOS F			
Roadway	Limits	Lanes	
		1990	2040 Base System ¹ 2040 Needs ²
STATE HIGHWAYS			
I-80	Sacramento County to Sierra College Blvd Penryn Road to Route 49 Auburn Ravine to Clipper Gap Road Applegate Road to Heather Glen Colfax/Route 174 to Magra	8 6 6 6 4	8 10 10 8 8 8
Route 65	Harding Boulevard to Blue Oaks Boulevard Sunset Blvd to Industrial Blvd Wise Road to Yuba Co Line	4 2 2	4 4 4 6 6
Route 193	Auburn Ravine to Sierra College Blvd	2	4 6
Route 49	Foresthill Road to I-80 Dry Creek Road to Nevada County Line	2 2	2 4 6
Route 174	I-80 to Auburn Street	2	4
Route 89	Pineland to Route 28	2	4
Route 28	Route 89 to Lardin Way Coon Street to Nevada State Line	2 2	2 4 4
UNINCORPORATED PLACER COUNTY			
Douglas Blvd	Sierra College Blvd to Barton Road	2	4 6
Sierra College Blvd	Douglas Blvd to Rocklin south city limits Loomis north limits to English Colony Way English Colony Way to Route 193	2 2 2	6 4 2 8 6 6
Taylor Road	Loomis Town limits to Callison Road	2	2 4
Sunset Blvd	Route 65 to Industrial Blvd	4	4 6
Barton Road	Douglas Blvd to Olive Branch Road Olive Ranch Road to Loomis Town Limits	2 2	2 4 4

TABLE 4-24 (Continued)

ROADWAYS OPERATING AT LOS F (Continued)		Lanes			
Roadway	Limits	1990	2040 Base System ¹	2040 Needs ²	
CITY OF ROSEVILLE					
Foothills Boulevard	Vineyard Road to Kirby Way	4	6	8	
Cirby Way	Foothills Boulevard to Riverside Avenue	4	6	8	
Riverside Avenue	Douglas Boulevard to Darling Way	2	2	4	
	Darling Way to Kirby Way	4	4	6	
	Cirby Way to I-80 (Eastbound)	6	6	8	
Vernon/Atlantic	Douglas Blvd to Grant Street	4	4	6	
	Grant Street to I-80	2	4	6	
Sunrise Avenue	Sacramento County to Douglas Boulevard	4	6	8	
Washington Boulevard	Route 65 to Industrial Boulevard	2	4	6	
	Junction Boulevard to Oak Street	4	4	6	
Blue Oaks Boulevard	Route 65 to Foothills Boulevard	2	6	8	
Pleasant Grove Boulevard	Washington Boulevard to Foothills Boulevard	0	6	8	
	Woodcreek Oaks Blvd to Fiddlyment Road	0	4	8	
Roseville Parkway	Sunrise Ave to Harding Blvd	0	6	8	
	Harding Boulevard to Pleasant Grove Boulevard	0	6	8	
TOWN OF LOOMIS					
Taylor Road	Horseshoe Bar Road to Loomis Town limits	2	2	4	
CITY OF AUBURN					
Auburn-Folsom Road	Auburn Limits to Maidu Road	2	2	4	
Nevada Street	Fulweiler Avenue to Palm Avenue	2	2	4	
UNINCORPORATED PLACER COUNTY					
Baseline Road	Sutter County Line to Watt Avenue	2	6	8	
Watt Avenue	Sacramento County Line to Baseline Road	2	6	8	

TABLE 4-24 (Continued)

ROADWAYS OPERATING AT LOS D OR E		Limits	Lanes		
			1990	2040 Base System ¹	2040 Needs ²
UNINCORPORATED PLACER COUNTY (continued)					
Sierra College Blvd	Sacramento County Line to Baseline Road	2	6	8	
Auburn-Folsom Road	Sacramento County to Douglas Blvd Laird Road to Auburn south city limits	2	2	8	
Bell Road	Route 49 to New Airport Road New Airport Toad to I-80	4	4	6	
Bowman Road	Auburn Ravine Road to Bowman Undercrossing	2	2	4	
Foresthill Road	Lincoln Way to Foresthill City Limits	2	2	4	
Lincoln Way	Auburn Ravine Road to Bowman Undercrossing	2	2	4	
Taylor Road	Callison Road to State Route 193	2	2	4	
Foothills Boulevard	Athens Road to Lincoln Crossing	2	4	6	
Cook-Riolo Road	Sacramento County Line to Baseline Road	2	2	4	
Fiddymont Road	Sunset Boulevard West to Moore Road Sunset Boulevard to Moore Road	2	2	4	
Barton Road	Sacramento County line to Douglas Boulevard	2	2	4	
CITY OF ROSEVILLE					
Baseline Road	Fiddymont Road to Woodcreek Oaks Boulevard	2	4	6	
Foothills Boulevard	Vineyard Road to Pleasant Grove Boulevard	4	6	8	
Douglas Boulevard	I-80 to Sierra College Boulevard	6	6	8	
Blue Oaks Boulevard	Foothills Boulevard to Fiddymont Road	0	6	8	
Pleasant Grove Boulevard	Rocklin south city limits to Washington Boulevard Foothill Blvd to Woodcreek Oaks Blvd	0	6	8	
Junction Boulevard	Woodcreek Oaks Boulevard to Fiddymont Road	0	4	6	
Roseville Parkway	Douglas Blvd to Rocky Ridge Rocky Ridge to Sunrise Ave	6	6	8	
		0	6	8	

TABLE 4-24 (Continued)

ROADWAYS OPERATING AT LOS D OR E			
Roadway	Limits	Lanes	
		1990	2040 Needs ²
CITY OF ROCKLIN			
Sierra College Boulevard	Rocklin south city limits to I-80	2	8
Sunset Boulevard	Pacific Avenue to Stanford Ranch Road	4	8
Rocklin Road	Pacific Avenue to I-80	4	6
	I-80 to Sierra College Blvd	4	8
Pacific Avenue	Sunset Blvd to Rocklin Road	4	6
Stanford Ranch Road	Route 65 to Fairway Drive	2	8
	Fairway Drive to Sunset Boulevard	4	8
TOWN OF LOOMIS			
Sierra College Boulevard	I-80 to Rocklin city limits	2	6
Taylor Road	Sierra College Boulevard to Horseshoe Bar Road	2	4
	King Road to Loomis Town Limits	2	4
King Road	Sierra College Blvd to Taylor Road	2	4
Horseshoe Bar Road	Taylor Road to I-80	2	4
CITY OF AUBURN			
Auburn-Folsom Road	Maidu Road to Lincoln Way	2	6
Lincoln Way	El Dorado Street to Oak Street	2	4
Nevada Street	I-80 to Fulweiler Ave	2	4

1. Includes all funded and unfunded improvements from the 2010 Mitigated Transportation System (shown in Tables 4-3, 4-4 and 4-21) plus unfunded improvements from the Placer County Regional Transportation Plan (shown in Table 4-7)
2. Reflects roadway lanes needed to achieve level of service standards based on 2040 travel demand with the 2040 Base Transportation System. The required lanes may not be feasible to implement and alternative mitigations may be possible (such as new or widened parallel roadways, grade separations, significant transit and/or travel demand management measures, etc.). The 2040 lane needs are intended only to guide right-of-way preservation in future planning efforts.

TABLE 4-25

**LANE MILES BY LEVEL OF SERVICE FOR YEAR 2040
Placer County Major Roadways**

Area	LOS	Existing		Proposed Project with 2010 Base		Proposed Project with 2040 Base	
		Lane Miles	Percent	Lane Miles	Percent	Lane Miles	Percent
South Placer	A-C	425.2	89.7%	553.2	78.0%	366.0	42.7%
	D-E	42.8	9.0%	97.8	13.8%	249.4	29.1%
	F	6.0	1.3%	58.4	8.2%	241.4	28.2%
	<i>Subtotal</i>	<i>474.0</i>		<i>709.2</i>		<i>856.8</i>	
Auburn-Foothills	A-C	243.4	92.2%	188.8	65.8%	83.0	26.3%
	D-E	20.6	7.8%	63.4	22.1%	107.0	33.9%
	F	0.0	0.0%	34.6	12.1%	125.8	39.8%
	<i>Subtotal</i>	<i>264.0</i>		<i>286.8</i>		<i>315.8</i>	
Lower Sierra	A-C	81.2	100.0%	92.6	100.0%	38.4	41.5%
	D-E	0.0	0.0%	0.0	0.0%	39.4	42.5%
	F	0.0	0.0%	0.0	0.0%	14.8	16.0%
	<i>Subtotal</i>	<i>81.2</i>		<i>92.6</i>		<i>92.6</i>	
Sierra/Tahoe	A-C	190.6	90.6%	94.0	44.7%	94.0	44.7%
	D-E	19.8	9.4%	101.6	48.3%	101.6	48.3%
	F	0.0	0.0%	14.8	7.0%	14.8	7.0%
	<i>Subtotal</i>	<i>210.4</i>		<i>210.4</i>		<i>210.4</i>	
Total	A-C	940.4	91.3%	928.4	71.5%	581.4	39.4%
	D-E	83.2	8.1%	262.8	20.2%	497.4	33.7%
	F	6.0	0.6%	107.8	8.3%	396.8	26.9%
	<i>Subtotal</i>	<i>1029.6</i>		<i>1299.0</i>		<i>1475.6</i>	

4.4 TRANSIT

SETTING

Local transit service in Placer County is currently provided by local governments and social service agencies, not independent transit operators. Most of these services are oriented toward senior citizens, disabled persons and other transit dependents (i.e., those without access to a car) and are not geared toward congestion relief. Placer County Transit, Roseville Commuter Service, and Lincoln Transit currently provide some limited commuter services.

The transit and paratransit services currently being offered by the transportation and social service agencies within Placer County are summarized in Table 4-26.

TABLE 4-26

PUBLIC TRANSIT PROVIDERS IN PLACER COUNTY

Transit Provider	Operator/Administrator	Service Area	Type of Service
Auburn Transit	City of Auburn	Auburn area	Fixed Route
RADAR	City of Roseville	Roseville area	Dial-a-Ride
RUSH	City of Roseville	Roseville area	Fixed Route
Roseville Commuter Service	City of Roseville	Roseville to Sacramento	Fixed Route/Express
Lincoln Transit	City of Lincoln	Lincoln area	Fixed Route
Placer County Transit Service	Placer County	Unincorporated County area	Fixed Route/Deviation
TART	Placer County	North and West Shore of Tahoe	Fixed Route
CTSA	CTSA of Placer	Placer County	Demand Response

Source: Placer County Congestion Management Program, PCTC, January 1994.

The Placer County Transportation Commission has prepared a Short Range Transit Plan to determine the overall demand for transit and paratransit services and to determine if all transit needs are being met in the county. The Proposed Plan has recommended service restructuring, a capital improvement plan to meet the service recommendations, and a financial plan addressing the operating and capital requirements of Placer County Transit over the next seven years. The City of Roseville has developed a similar Short Range Transit Plan for its Roseville Urban Shuttle Transit (RUSH), Roseville Commuter Service, and Roseville Area Dial-a-Ride (RADAR) systems and has recently developed a Long Range Master Transit Plan. The City will soon undertake the development of their Transit Opportunities Plan that is intended to establish transit corridors and land use/design guidelines within those corridors. The City expects amendments to its General Plan policies as a result of the Transit Opportunities Plan.

Extension of light rail service from Sacramento to Roseville has been studied as part of Sacramento Regional Transit's Systems Planning Study. There is no implementation schedule for the full extension at this time, although plans are underway to extend service as far as Antelope in Sacramento County by 1996. The City of Roseville is currently under a \$450,000 contract with Sacramento Regional Transit to prepare preliminary engineering studies and an EIR for the light rail extension from Antelope Road to Roseville Parkway.

The Placer County Transportation Commission (PCTC) undertook a study of commuter rail service from Placer County through Sacramento to Davis in Yolo County along the Southern Pacific corridor. Stations in Placer County would be served at Roseville, Rocklin, Loomis, Newcastle, Auburn, Bowman, and Colfax. There is no implementation schedule for this project, although interest remains high.

PCTC is currently undertaking a long-range transit organization study expected to be completed by June 1994. The study will recommend various service levels and organizational alternatives for future transit service delivery in Placer County.

There are two providers of intercity transit service: Greyhound and AMTRAK. Greyhound provides intercity bus transportation in Placer County. Service is provided to major urban centers throughout the nation. AMTRAK provides intercity rail service to Placer County via stations in Roseville and Colfax. The "California Zephyr" provides east-west service between Chicago and Oakland with one stop in each direction daily. Placer County residents can also access the California Zephyr at Truckee in Nevada County. AMTRAK's Pacific Coast Route has a stop in Sacramento and travels through Roseville, but does not have a stop in Placer County. Other AMTRAK trains can be accessed at Sacramento, or by using the AMTRAK Thruway Bus Connections to Roseville.

Capital Corridor Intercity Rail began operation in December 1991. This service links the Bay Area with the Sacramento area and Placer County. At present, one round trip train accesses Roseville daily. Additional trains and an extension as far as Rocklin and Bowman are planned.

IMPLICATIONS OF THE GENERAL PLAN LAND USE DIAGRAM

Substantial increases in traffic volumes would occur by 2010 due to land use development and growth in Placer County under the *General Plan*, especially the southern part of the county as discussed under Section 4.2. With the anticipated large increases in population and employment in South Placer County, it would be difficult for the County to maintain its roadway level of service standard and meet the goals and standards of the Placer County Air Quality Attainment Plan and the Placer County Congestion Management Program. For these reasons, the need for intra- and inter-county transit services will be important to the County as future development occurs. This would require improvements to transit services, including service to the proposed growth areas, to achieve level of service, air quality, and the average vehicle ridership (AVR) standards. Such transit improvements would require adequate funding for operations as well as capital costs.

The County currently has limited transit services. The level of transit funding in PCTC's "Draft Projects List" for the 1993 RTP would allow modest additional capital expenditures and operating costs for transit operators compared to the anticipated growth in population and employment in the County. The analysis of Year 2010 travel demand includes the extension of light rail transit (LRT) to Antelope in Sacramento County. The bus system assumed for this analysis would include a feeder service to the Antelope end-of-the-line LRT station and a limited increase in intra-county services. With the *General Plan* Land Use and the limited transit services, travel within and through the county would increasingly rely on the automobile, as shown by the mode choice percentages in Table 4-8 and discussed in Section 4.2.

GENERAL PLAN POLICY RESPONSE

Improvements to the County's transit service will be needed to help achieve its roadway level of service standard as well as trip reduction standards in both the County's Trip Reduction Ordinance and the Placer County Air Quality Attainment Plan (AQAP) to achieve air quality goals.

The following policies and programs address the transit-related implications of the *Land Use Diagram*.

Policies

- 3.B.1. *The County shall work with transit providers to plan and implement additional transit services within and to the county that are timely, cost-effective, and responsive to growth patterns and existing and future transit demand.*
- 3.B.2. *The County shall promote the provision of high quality transit service in the transit corridors designated in Figure I-7 in Part I of this Policy Document.*
- 3.B.3. *The County shall consider the need for future transit right-of-way in reviewing and approving plans for development. Rights-of-way may either be exclusive or shared with other vehicles.*
- 3.B.4. *The County shall pursue all available sources of funding for transit services.*
- 3.B.5. *The County shall support and pursue the extension of light rail service to Roseville.*
- 3.B.6. *The County shall support and remain actively involved in expanding the Capital Corridor Service for the needs of commuters.*
- 3.B.7. *The County shall continue to explore development of other rail systems, such as Roseville to Marysville service, to serve Placer County residents, workers, and businesses.*
- 3.B.8. *The County shall undertake, as funding permits, and participate in studies of inter-regional recreational transit services, such as rail, to the Sierra.*
- 3.B.9. *The County shall require development of transit services by ski resorts and other recreational providers in the Sierra to meet existing and future recreational demand.*
- 3.B.10. *The County shall consider the transit needs of senior, disabled, minority, low-income, and transit-dependent persons in making decisions regarding transit services and in compliance with the Americans with Disabilities Act.*
- 3.B.11. *The County shall support efforts to provide demand-responsive service ("paratransit") and other transportation services for those unable to use conventional transit.*
- 3.B.12. *The County shall encourage the development of facilities for convenient transfers between different transportation systems. (e.g., train-to-bus, bus-to-bus)*
- 3.B.13. *The County shall designate transportation corridors that provide linkages with other regional transportation corridors, Light Rail Terminus Stations, and major transportation facilities.*

Programs

- 3.7. *The County shall work with the Placer County Transportation Commission in periodically reviewing and updating its short-range transit plan at least as often as required by State law.*

- 3.8. *The County shall work with the Placer County Transportation Commission in preparing, adopting, and implementing a long-range strategic transit master plan to develop and maintain a viable transit system for the county. The master plan should include planning for transit corridors. The plan should be reviewed and updated on a regular basis.*
- 3.9. *The County shall continue to participate in planning for and implementing improved passenger rail service to Placer County, including the proposed Auburn/Sacramento/Oakland/San Jose service.*
- 3.10. *The County shall work with other agencies to identify transit corridors and to acquire abandoned rights-of-way and preserve right-of-way and tracks structures within transit corridors.*
- 3.11. *The County shall work with Caltrans and other agencies to determine the need for additional or expanded park-and-ride lots and to identify additional sites for such lots.*
- 3.12. *The County shall assist transit planning agencies and transit providers in assessing transit demand and the adequacy of existing services.*
- 3.13. *The County shall prepare and adopt land use and design standards for areas within designated transit corridors consistent with the policies and standards in this Policy Document. The County shall also develop design standards that can be applied in all urban/suburban areas to promote transit accessibility and use, and require the provisions of transit amenities as conditions of project approval.*
- 3.14. *The County shall work with other agencies to identify and pursue funding for transit.*
- 3.15. *As appropriate, the County shall adopt resolutions in support of local, state, and federal legislation and funding for rail service.*
- 3.16. *The County shall adopt and implement funding mechanisms to support adopted transit plans throughout the county. Such mechanisms may include service area fees and transit impact fees.*
- 3.17. *The County shall participate in a multi-modal corridor study of the I-80 corridor that will explore improvements to passenger rail service and high occupancy vehicle (HOV) facilities to maximize the person-carrying capacity of the corridor.*

Policies 3.B.1 through 3.B.12 call for the County to actively pursue and support transit system improvements, particularly funding mechanisms and land use guidelines. Implementation Program 3.8 would require completion of a long-range strategic transit master plan for the county. That study would include a plan for the transit corridors described in Part I of the Policy Document and address the feasibility of a commuter-oriented transit system for the county.

Policy 3.B.2. and Implementation Program 3.13 advocate the land use planning component for promoting transit accessibility and land use by calling for preparation of land use and design standards within the designated transit corridors. The purpose of the standards is to maximize transit utilization. Emphasis will be placed on coordinating land use and transit planning to increase the viability of high quality transit services (e.g., express bus, rail).

Policies 3.B.5 through 3.B.8 call for the County to pursue rail services, both light rail and commuter rail, which would partially address the anticipated traffic congestion levels expected in the I-80 corridor. Implementation Program 3.17 would require the County to participate in a multi-modal corridor study for I-80, which would include investigating passenger rail service. Implementation Program 3.9 would require the County to participate in the implementation of planned passenger rail services. Policy 3.B.3 and Implementation Program 3.10 call for the County to plan for future transit services by working with other agencies to identify, acquire and/or pursue right-of-way for future transportation corridors.

Policies 3.B.8 and 3.B.9 relate to the County's promotion of transit services for recreational travel, particularly to and from the Sierra as well as within the Sierra.

Policies 3.B.10 and 3.B.11 address the need for the County to consider and support efforts to provide transit services to senior, disabled, low-income, and transit-dependent persons. Funding for providing transit service in compliance with the Americans with Disabilities Act (ADA) should be pursued and secured.

IMPACTS

If the policies contained within the *General Plan* are effectively implemented, including policies directed towards securing funding for transit improvements (Policies 3.B.4 and 6.G.5), less than significant effects on transit services would be anticipated. The effective implementation of the policies also includes the coordination with the cities, especially in developing land use design standards for transit corridors that pass through the cities.

MITIGATION MEASURES

No mitigation measures are necessary.

ANALYSIS OF 2040 CONDITIONS

As population and employment in the County continues to grow to the year 2040, travel demand will substantially increase. It will become more difficult to widen roadways, particularly in the infill/developed areas of the county. Widening beyond a certain number of lanes would not be a practical solution in the long-term.

As well as capacity constraints, air quality and energy conservation will become more of an issue as the county increases its population and employment. Unless technology diminishes the concern about air quality and energy, trip reduction measures will become more critical by 2040.

The impacts of the Transit Corridor land use and design guidelines and standards may not have a significant effect by 2010, but by 2040, the guidelines and standards may have a significant effect on single-occupant vehicle trip reduction, if they are effectively implemented over this extended period. The preservation of transit corridors over time may allow new or upgraded rail service or express bus service to be implemented and viable as the densities become higher in the corridors. Funding may also be secured for capital purchases and operations to implement rail service. The designation of Transit Corridors through areas expected to accommodate substantial new urban development can influence design now so that in the future, high-quality transit service becomes more feasible.

4.5 TRANSPORTATION SYSTEMS MANAGEMENT

SETTING

Along with highway and transit improvements, Placer County clearly needs to more efficiently use the existing transportation system if it is to meet the increased demand of the future. Management techniques such as ridesharing, variable work hours, high occupancy vehicle lanes, increased use of public transit and "operational improvements" on the transportation system are receiving increased attention. Transportation System Management (TSM) focuses on reducing the number of vehicles on highways during peak periods through techniques such as ridesharing, increased use of transit, and staggered work hours. Such measures can be integrated into the land use planning process by providing incentives to developers, such as reduced parking requirements or reduced development impact fees, when certain trip reduction techniques are implemented. TSM is an approach to solving transportation problems by improving the efficiency of the existing transportation system by better managing the demand for transportation facilities. TSM considers existing streets and highways, rail trackage, parking facilities, bike and pedestrian facilities, and public and private vehicles as elements of a single transportation system. TSM attempts to organize these elements through operating, regulatory, and pricing policies into one efficient, productive, and integrated transportation system.

The Placer County Congestion Management Program (CMP) includes a Trip Reduction and Travel Demand Management Element, as required by California Government Code section 65089(b)(3). This legislation requires that the trip reduction and travel demand element of a CMP promote alternative transportation methods, such as carpools, vanpools, transit, bicycles, and park-and-ride lots; improvements in the balance between jobs and housing; and other strategies, including flexible work hours and parking management programs. The CMP legislation also makes this element a conformance requirement; local governments that do not adopt trip reduction and travel demand ordinances may risk losing the increment in their gasoline tax subvention provided by Proposition 111.

The County of Placer revised its Trip Reduction Ordinance (TRO) in 1993. The County's TRO ensures that developers, property owners, and employers will share the burden of growth by developing, implementing and monitoring their Transportation Plan. The intent of the ordinance is that "employers strive to reach the goal of an Average Vehicle Ridership (AVR) of 1.4 persons per vehicle within the air basin by 1999 in compliance with the California Clean Air Act." Simply described, AVR is the ratio of person trips to vehicle trips for all purposes (work and non-work related) during commute periods, and reflects the extent to which vehicle travel is reduced by carpools, transit, bicycles and walking.

IMPLICATIONS OF THE GENERAL PLAN LAND USE DIAGRAM

Significant increases in population and employment are anticipated in South Placer County over the next two decades. With the anticipated growth and related traffic volume increases discussed in Section 4.3, it would be difficult for the County to maintain its roadway level of service policy, meet the goals and standards of the Placer County CMP and AQAP, and meet the County's goal of an AVR of 1.4 persons per vehicle in the Trip Reduction Ordinance. The mode choice analysis of the 2010 Base Transportation System indicated that Placer County would only achieve 1.27 to 1.29 AVR without an aggressive TSM program. To achieve the level of service, air quality, and average vehicle ridership standards, significant TSM measures are required as future development occurs.

GENERAL PLAN POLICY RESPONSE

The following General Plan policies and programs promote transportation systems management:

Policies

- 3.C.1. *The County shall promote the use of transportation systems management (TSM) programs that divert automobile commute trips to transit, walking, and bicycling.*
- 3.C.2. *The County shall promote the use, by both the public and private sectors, of TSM programs that increase the average occupancy of vehicles.*
- 3.C.3. *The County shall work with other responsible agencies to develop other measures to reduce vehicular travel demand and meet air quality goals.*
- 3.C.4. *During the development review process, the County shall require that proposed projects meet adopted Trip Reduction Ordinance (TRO) requirements.*

Programs

- 3.18. *The County shall regularly monitor performance under its Trip Reduction Ordinance (TRO) and shall periodically review its TRO and revise it as necessary.*
- 3.19. *The County shall work with Placer County cities and other agencies, such as Sacramento RIDESHARE and South Placer County Transportation Management Agency (TMA), in developing programs and facilities.*

These policies call for the County to promote TSM programs and work with other agencies to efficiently utilize transportation facilities. Implementation Program 3.18 would require the County to regularly monitor its performance under its Trip Reduction ordinance and periodically review and revise it as necessary. Policies 3.G.1 through 3.G.4 address the development and performance of the transportation system that promotes the use of TSM measures. The responsibility of the County to encourage the efficient use of the transportation system would go beyond monitoring and review of its Trip Reduction Ordinance. Implementation Program 3.19 calls for the County to participate and be involved in developing programs and facilities to efficiently utilize the County's transportation system. The County should develop these programs in coordination with other agencies, such as Sacramento RIDESHARE, South Placer County Transportation Management Association (TMA), and the cities.

IMPACTS

Effective implementation of the policies and programs in the *Policy Document*, including policies intended to secure funding for transit improvements (Policies 3.A.13, 3.A.14, and 3.D.3), impacts would be less-than-significant.

MITIGATION MEASURES

No mitigation measures are necessary.

ANALYSIS OF 2040 CONDITIONS

As discussed in Section 4.4, the travel demand by the year 2040 would become very large if travel behavior and patterns do not change. Severe level of service problems would develop for roadways unless there is a change in travel behavior. It will become critical that the County have a more active role in promoting TSM measures. By 2040, major technology differences may make TSM measures more available and practical. The County's Trip Reduction Ordinance should be reviewed and updated to reflect the new technologies.

If travel behavior does not change over time, then TSM measures implemented over this extended period may play a major role by 2040. As TSM programs are developed and new facilities and development are constructed with design standards that encourage alternative modes of transportation, over time, communities will develop a transportation system that relies less on the automobile. The programs, facilities and change in the transportation system could influence people's behavior over an extended period.

Carpool lanes in the I-80 corridor from Sacramento County to Sierra College Boulevard will be implemented by 2010. As the I-80 "transit corridor" intensifies and develops, these HOV lanes should have a significant effect. HOV lanes could be implemented in other transit corridors such as SR 65, as those corridors develop.

4.6 NON-MOTORIZED TRANSPORTATION

SETTING

Bikeways

A limited number of bikeways are provided in Placer County. Officially designated bicycle facilities are classified as follows:

- Class I:** Off-street bike trails or paths which are physically separated from streets or roads used by motorized vehicles.
- Class II:** On-street bike lanes with signs, striped lane markings, and pavement legends.
- Class III:** On-street bike routes marked by signs and shared with motor vehicles and pedestrians. Optional four inch edge lines painted on the pavement.

Bikeway plans have been developed within a number of community plan areas, within the Tahoe area, the City of Roseville, and on a countywide basis through the Placer County Bikeways Master Plan. This master plan includes the communities of Colfax, Weimar, Meadow Vista, Auburn, Newcastle, Lincoln, Penryn, Loomis, Rocklin, Roseville, and Granite Bay.

Specific funding for bikeways has been allocated by the Placer County Transportation Commission by dedicating two percent of Transportation Development Act funds for bicycle and pedestrian projects. These funds are distributed to Cities and the unincorporated county based upon population and other criteria. A set of bicycle improvement guidelines has been developed. Table 4-27 summarizes the *Placer County Bikeways Master Plan* prioritization list of bikeway needs.

As part of the *Regional Transportation Plan - Air Quality Plan* prepared by the Tahoe Regional Planning Agency (TRPA) in 1992, TRPA identified bicycle trails to be constructed in the Tahoe Area, with the following proposed bicycle trails being located in Placer County:

- Class I - Fanny Bridge to Tahoe State Recreation Area
- Class I - North Tahoe Regional Park to Dollar Hill
- Class II - SR 28, Dollar Hill to California/Nevada State line
- Class II - Country Club Drive, Lake Shore Drive to Driver Way

Walkways

The Placer County Public Works Department has design standards for sidewalks that are currently used for new development.

IMPLICATIONS OF THE GENERAL PLAN LAND USE DIAGRAM

Bikeways

While the demand for safe and convenient routes for recreational and transportation related bicycling is growing, there are deficiencies in the County's existing and planned bikeway system. The projected level of development under the *General Plan Land Use Diagram* would significantly affect the bikeway system. The current deficiencies in the system include the following:

- The County's existing bikeway system is very limited and current funding sources for bikeways will not keep-up with the growth in demand for bicycle use.
- There is no official provision for planning of bicycling amenities, such as rest facilities and parking areas.
- There is a lack of designated County staff to coordinate bikeway issues and follow through with the planning, development, and implementation of the bikeway system, including working with the cities.

The *Placer County Bikeways Master Plan* prepared for the Placer County Transportation Commission was developed in 1988. The plan provides only a ten-year policy guide. The plan was developed prior to the development of the *General Plan Land Use Diagram* and does not cover the portion of the County east of Colfax. A bikeway plan for the Lake Tahoe region is included in TRPA's *Regional Transportation Plan - Air Quality Plan* and provides for increased recreational use in the future.

Walkways

The *General Plan Land Use Diagram* would accommodate increased development in the county and increase the need for pedestrian accessibility. As development occurs, standards for walkways should be used as a guide to provide consistency and continuity within the walking areas. However, standards that vary depending upon the type of development do not currently exist in the county and, therefore, the provision and adequacy of the walkways can vary among developments.

TABLE 4-27

PLACER COUNTY BIKEWAY MASTER PLAN

Roadway	Section	Bikeway Class	Priority
Auburn-Folsom Road	Sacramento County Line to Highway 193	3	1
Sierra College Boulevard	Sacramento County Line to Roseville City Limit	3	1
	Old Auburn Road to Milepost 0.50	3	1
	Eureka Road to Rocklin City Limit	3	1
	Rocklin Road to I-80	3	1
	Loomis Town Limit to Highway 193	3	1
Lincoln Way	Auburn City Limit to Bowman Undercrossing	2	1
Bowman Road	Bell Road to Dry Creek Road	2	1
	Dry Creek Road to Luther Road	2	1
	Luther Road to Auburn Ravine Road	3	1
Lake Arthur Road	Dry Creek Road to Crother	3	1
Applegate Road	South and to I-80	3	1
Giesendorfer Road	I-80 to I-80	3	1
Canyon Way	I-80 to Colfax City Limit	3	1
Douglas Boulevard	Sierra College to Oak Knoll Drive	2	2
Luther Road	Highway 49 to Bowman Road	3	2
Bell Road	Bowman Road to Wilson Drive	3	2
	Wilson Drive to Joerger Road	3	2
King Road	Loomis Town Limit to Sugarloaf Mountain Rd	2	2
	Sugarloaf Mountain Road to Auburn-Folsom Rd	3	2
Sunset Boulevard	Rocklin City Limit to Highway 65	2	2
	Highway 65 to Placer Boulevard	3	2
	Placer Boulevard to West end	2	2
Indian Hill Road	I-80 to Auburn-Folsom Road	3	2
Horseshoe Bar Road	Loomis Town Limit to Auburn-Folsom Road	2	2
	Auburn-Folsom Road to East end	3	2
Dry Creek Road	Richardson Drive to Lake Arthur Road	3	2
W Weimar Cross Road	Placer Hills Road to I-80	2	2
Placer Hills Road	Lake Arthur Road to Colfax City Limit	3	2
Wells Road	Loomis Town Limit to Val Verde Road	2	2
Ophir Road	Highway 193 to Wise Road	3	2
Industrial Avenue	Roseville City Limit to Highway 65	3	3
Newcastle Road	Rattlesnake Bar Road to Indian Hill Road	3	3
English Colony Road	Sierra College Boulevard to Taylor Road	3	3
Rock Springs Road	Taylor Road to Auburn-Folsom Road	3	3
Penryn Road	King Road to Taylor Road	3	3
Val Verde Road	Wells Road to King Road	3	3
Crother Road	Placer Hills Road to Applegate Road	3	3
Atwood Road	Richardson Road to Highway 49	3	3
Tokayana Road	Placer Hills Road to Ben Taylor Road	3	3
Rattlesnake Bar Road	Shirland Tract Road to Folsom Lake State Park	3	3
Foresthill Road	Lincoln Way to Clementine Road	3	3

1. Highest Priority Elements are numbered "1".

Source: Placer County Bikeways Master Plan, Omni-Means Engineers-Planners, 1988.

GENERAL PLAN POLICY RESPONSE

The General Plan includes the following policies to address the implications of the *Land Use Diagram* on non-motorized transportation:

Bikeways*Policies*

- 3.D.1. *The County shall promote the development of a comprehensive and safe system of recreational and commuter bicycle routes that provides connections between the county's major employment and housing areas and between its existing and planned bikeways.*
- 3.D.2. *The County shall work with neighboring jurisdictions to coordinate planning and development of the County's bikeways and multi-purpose trails with those of neighboring jurisdictions.*
- 3.D.3. *The County shall pursue all available sources of funding for the development and improvement of trails for non-motorized transportation (bikeways, pedestrian, and equestrian).*
- 3.D.4. *The County shall promote non-motorized travel (bikeways, pedestrian, and equestrian) through appropriate facilities, programs, and information.*

Programs

- 3.20. *The County shall review and revise its Bikeways/Trails Master Plan consistent with the General Plan.*
- 3.21. *The County shall require that bikeways recommended in the Bikeways/Trails Master Plan be developed when roadway projects are constructed and when street frontage improvements are required of new development.*

These policies call for the development and promotion of a comprehensive bikeway system that would provide connections between the county's major employment and housing areas and between its existing and planned bikeways. To ensure the development of the Bikeway Master Plan, Implementation Programs 3.19, 3.20, and 3.21 require the review and revision of the current Master Plan to establish consistency with the *General Plan*. These programs also require the construction of bikeways in conjunction with the construction of a roadway and street frontage improvements required of new development. To promote bicycle use, Implementation Program 3.22, which calls for preparation and availability of a bicycle route map, along with programs 3.19 through 3.20, would be employed.

The key to implementation of the bikeway plan will be adequate funding mechanisms. The pursuit of funding sources is addressed by Policy 3.D.3. The County should provide resources to identify funding mechanisms for implementing the revised bikeway plan (as set forth in Policy 3.D.1) consistent with timing of development. Funding availability and schedule for the implementation of the bikeway plan may not coincide with development. As an area intensifies its land use, the transportation system improvements, including bikeways, should occur concurrently.

Walkways

Policies

- 3.D.4. *The County shall promote non-motorized travel (bikeways, pedestrian, and equestrian) through appropriate facilities, programs, and information.*
- 3.D.5. *The County shall continue to require developers to finance and install pedestrian walkways, equestrian trails, and multi-purpose paths in new development, as appropriate.*
- 3.D.6. *The County shall support the development of parking areas near access to hiking and equestrian trails.*

Program

- 3.24. *The County should develop and adopt standards for bicycle, pedestrian, and equestrian facilities. These standards should vary by types of land use and terrain.*

Policies 3.D.4 through 3.D.6 would promote pedestrian travel through required provision of facilities. Implementation Programs 3.24 would require development of standards to use as a guide for design of trails.

IMPACTS

Bikeways

Effective implementation of the *General Plan* would resolve existing deficiencies in the County’s bikeway system over the long-term. Less-than-significant impacts are anticipated under implementation of the *General Plan* policies and programs.

Walkways

Effective implementation of the *General Plan* policies and programs would prevent significant impacts from occurring as a result of development under the *Land Use Diagram*. The impacts would therefore be less-than-significant.

MITIGATION MEASURES

No mitigation are necessary.

ANALYSIS OF 2040 CONDITIONS

By 2040, the implementation of the land use and facility design standards that promote bicycling and walking would have more of an effect on trip reduction than would occur by 2010. As new development occurs and the standards are implemented and enforced, the bicycle network and walkway system will become more extensive. Over time, an integrated bicycle and walkway system could link communities and have substantial use if design standards are effectively implemented.

4.7 GOODS MOVEMENT

SETTING

Highway Freight Transportation

The majority of goods movement in Placer County is provided by truck transportation. Placer County has considerable long-distance trucking activity, because of the presence of Interstate 80. Trucks are defined as heavy freight vehicles which meet the Service Transportation Assistance Act of 1982 (STAA) definitions as found in the California Vehicle Code. Truck routes on city or county roads can be designated by the specific city or county. Additionally, the County can specifically prohibit trucks from using State or National highways if needed. Placer County has not developed a system of truck routes for the unincorporated county. Trucks are, however, prohibited from using specific bridges and roadways (see list in the *General Plan Background Report*).

Rail Freight Transportation

Rail freight service in Placer County is provided by the Southern Pacific Transportation Company. Roseville is the site of a major Southern Pacific Rail Yard. From Roseville, lines extend northeast across the Sierra, north through the Sacramento Valley, and southwest into Sacramento and on to the Bay Area and San Joaquin Valleys. The route from Sacramento through Roseville and across the Sierra is a major transcontinental rail corridor. The Roseville yard serves as a major switching center as eastbound railcars and locomotives are organized for the substantial climb over the Sierra, and westbound railcars are redistributed for delivery to West Coast destinations.

IMPLICATIONS OF THE GENERAL PLAN LAND USE DIAGRAM

The population and employment would increase substantially under the *General Plan Land Use*. The regions around Placer County are also expected to experience significant growth. The demand for goods as well as truck volumes, would increase in response to the increased development. Congestion is expected in major travel corridors, particularly I-80, which is a regional and interstate link in goods movement transport. Roadway congestion, insufficient system capacity, such as limited railroad track usage, and poor scheduling may cause delays. Delays in transporting goods translate into higher costs to the shipper which usually are passed to the consumer. Therefore, it is important for the County to maintain a balanced freight transportation system.

GENERAL PLAN POLICY RESPONSE

The following policies and programs address the implications of the *Land Use Diagram* concerning goods movement:

Policies

- 3.E.1. *The County shall promote efficient inter-regional goods movement in the I-80 corridor.*
- 3.E.2. *The County shall encourage continued freight service on the Southern Pacific rail line.*
- 3.E.3. *The County shall plan for and maintain a roadway system that provides for efficient and safe movement of goods within Placer County.*

- 3.E.4. *The County should assist public and private agencies in integrating railroad freight services into regional transportation and economic development strategies.*
- 3.E.5. *The County shall support federal and state efforts to levy higher user charges for mitigating truck traffic impacts.*
- 3.E.6. *The County shall investigate and encourage the use of heavy rail for interurban transport of goods and materials in the I-80 corridor.*
- 3.E.7. *The County shall participate in regional coordination efforts to assure that land use and transportation plans are integrated with rail development plans.*

Programs

- 3.25. *The County shall develop and adopt transportation design standards that address truck traffic conflicts with transit, bicycles, and foot traffic.*
- 3.26. *The County shall participate in a multi-modal corridor study of the I-80 corridor to examine opportunities to reduce truck traffic and increase rail capacity.*

These policies call for the County to promote efficient inter-regional goods movement in the I-80 corridor while encouraging continued freight service on the Southern Pacific Rail line. Policy 3.E.6 calls for the County to investigate the use of rail for interurban transport in the I-80 corridor and Implementation Program 3.26 implements this policy by requiring the County to participate in a multi-modal corridor study for I-80 that includes investigating goods movement.

These policies address freight truck travel by requiring the County to maintain a roadway system that provides safe, efficient goods movement and is consistent with air quality, congestion management, and land use goals. Implementation Program 3.25 calls for the County to develop transportation design standards that minimize truck traffic interference with other person-movement modes, i.e., transit, bicycles and walking.

Policies also address integrating rail freight plans and services, requiring the County to consider rail freight service in coordination with other agencies when developing regional transportation and economic strategies and land use and transportation plans.

IMPACTS

No significant impacts on goods movement would be anticipated if the policies contained in the *General Plan* are effectively implemented.

MITIGATION MEASURES

No mitigation measures are necessary.

ANALYSIS OF 2040 CONDITIONS

Rail facilities and service in the I-80 corridor will become more important by 2040 as population and employment increase in Placer County and other regions around Placer County. Goods movement in this

corridor may increasingly rely on rail as roadways become congested. The County should continue to preserve rail facilities and service in the corridor and support the upgrade of these facilities over time.

4.8 AVIATION

SETTING

On the western slope of Placer County, there are three general purpose airports; Auburn Municipal Airport, Blue Canyon Airport, and Lincoln Municipal Airport. The Blue Canyon Airport, which is operated by the County, is an emergency airstrip. It presently has only two based aircraft, both single engine. From the standpoint of overall aviation in Placer County, the Blue Canyon Airport plays a relatively minor role.

In the eastern county, the Truckee-Tahoe Airport is located near the northeastern edge of the county. The airport lies northwest of the Lake Tahoe Basin, about two miles east of the town of Truckee along Highway 267 and roughly in the center of a 70 square mile area known as the Martis Valley. The majority of the airport lies in Nevada County. Only 15 percent of the airport is in Placer County. The Truckee-Tahoe Airport District owns and operates the airport. As of August 1985, there were 12 based aircraft and an estimated 74,100 annual operations. In 1988, the Truckee-Tahoe Airport Master Plan was completed. This study predicts that aircraft operations at the airport will remain primarily single and multi-engine, although business jet activity is expected to show strong growth. While certified air carrier service is not expected to occur during the master plan time frame, it is predicted that there will be extensive air passenger movement by commuter airlines and aircraft charter, by air taxi operations related to the fixed-base operators, and by personal and business aircraft.

Auburn Municipal Airport is located north of the City of Auburn on Airport Road, north of Bell Road. In 1989, there were 206 based aircraft, 195 single engine and eleven multi-engine at the airport. The airport had a total of 68,000 operations in 1989. Future projections range from an estimate of 249 based aircraft in 2005 with 77,400 annual operations (preliminary California Aviation System Plan) to 360 based aircraft with 144,000 annual operations in 2007 (Auburn Municipal Airport Master Plan and Environmental Impact Report, 1989).

Lincoln Municipal Airport is operated by the City of Lincoln. It is located on the western edge of the City, north of Nicolaus Road. The City of Lincoln reports that in FY 1989-90, there were 244 based aircraft including 213 single engine, 22 multi-engine, 4 turbo-props, 2 turbo jets and 1 rotocraft. The total number of operations for FY 1989-90 was 103,000. Future projections, according to City of Lincoln, are for 125,500 operations per year and 404 based aircraft in 2005.

For long-distance commercial air travel, Placer County residents generally use the major airports in South Lake Tahoe, Sacramento, Reno, and San Francisco.

IMPLICATIONS OF THE GENERAL PLAN LAND USE DIAGRAM

Under the *General Plan Land Use*, the land uses near the airport approach and departure zones are limited to uses compatible with aviation operations. The significant increase in population and employment under the *General Plan Land Use* would result in a significant increase the use of the airports located within Placer County.

GENERAL PLAN POLICY RESPONSE

The following policies and programs address the implications of the *Land Use Diagram* on air transportation.

Policies

- 3.F.1. *The County shall support the continued use of the Auburn Municipal Airport, the Lincoln Municipal Airport, and the Truckee-Tahoe Airport as general purpose airports.*
- 3.F.2. *The County shall work with the Airport Land Use Commission in the planning of land uses around the Auburn Municipal Airport, the Lincoln Municipal Airport, and the Truckee-Tahoe Airport to ensure protection of airport operations from urban encroachment.*
- 3.F.3. *The County shall support the continued use of the Blue Canyon Airport as an emergency airstrip.*
- 8.D.1. *The County shall ensure that new development around airports does not create safety hazards such as lights from direct or reflective sources, smoke, electrical interference, hazardous chemicals, or fuel storage in violation of adopted safety standards.*
- 8.D.2. *The County shall limit land uses in airport safety zones to those uses listed in the applicable airport comprehensive land use plans (CLUPs) as compatible uses. Exceptions shall be made only as provided for in the CLUPs. Such uses shall also be regulated to ensure compatibility in terms of location, height, and noise.*
- 8.D.3. *The County shall ensure that development within the airport approach and departure zones complies with Part 77 of the Federal Aviation Administration Regulations (objects affecting navigable airspace).*

Programs

- 3.27. *The County shall provide the necessary maintenance of the Blue Canyon Airport to support its continued use for emergency operations.*
- 8.8. *The County shall review all development projects within the overflight zones of Placer County airports for consistency with applicable airport comprehensive land use plans (CLUPs).*

These policies and programs call for the County to ensure that the planning of land uses and new development be compatible with airport activities to minimize airport hazards. The County should recognize that such land uses will be subject to noise protection, locational, use and height restrictions. Policy 8.D.1 ensures that new development around airports does not generate safety hazards such as lights from direct or reflective sources, smoke, electrical interference, hazardous chemical, or fuel storage that would affect the safety of the airport operations.

Policies 3.F.1 and 3.F.3 call for the County to support the continued use of the Auburn Municipal Airport, Lincoln Municipal Airport and Truckee-Tahoe Airport, as general purpose airports and the Blue Canyon Airport as an emergency airstrip.

Implementation Program 8.8 has the County review development projects within overflight zones of the airports for compatibility with applicable airport comprehensive land use plans (CLUPs).

IMPACTS

If the policies contained in the *General Plan* are effectively implemented, effects on airport operations would be less-than-significant.

MITIGATION MEASURES

No mitigation measures are necessary.

ANALYSIS OF 2040 CONDITIONS

As population and employment growth occur under the *General Plan*, there would be greater demand for aviation operations, both general and commercial. There would be a substantial population growth in South Placer County between 2010 and 2040 that is close to Sacramento County and would result in an increase in commercial aviation use of Metro Airport. This growth also would require the County and cities to preserve the airport facilities in Placer County to accommodate the increased demand for general aviation use.