4.15 TRANSPORTATION and CIRCULATION

The following section includes an analysis of the existing and future traffic operations for the key roadways in Tuolumne County. The analysis herein is based on the Environmental Impact Report Traffic Study ("Traffic Study") prepared for Tuolumne County Transportation Council by Wood Rodgers (September 2015). This section reviews traffic volume forecasts for 2030 and 2040 under full build-out of the General Plan Update, to accommodate population growth to 59,000 residents in 2030 and 63,243 residents in 2040. The section identifies transportation and circulation improvements that would be necessary to accommodate traffic volumes under build-out conditions.

4.15.1 Setting

a. Existing Vehicular Circulation System.

Major Roadways. Circulation in/through Tuolumne County is primarily provided by State Route 49 (SR 49), State Route 108 (SR 108), State Route 120 (SR 120) and State Route 132 (SR 132). In addition, County and city streets and roads as well as Federal and private roads also provide local and regional access across the County. Figure 4.15-1 shows Tuolumne County's State Route system. Figure 4.15-2 identifies the street and highway routes, and intersections within Tuolumne County.

State Routes play a major role in Tuolumne County's transportation system. Each of the major State Routes is summarized below.

State Route 49 (SR 49). A North-South state highway that traverses the eastern portion of northern California from Madera County to Plumas County. SR 49 extends through the western and most populated portion of Tuolumne County, linking the communities of Moccasin, Chinese Camp, Tuttletown, and the City of Sonora. SR 49 runs concurrent with SR 120 between the communities of Moccasin and Chinese Camp and runs concurrent with SR 108 through Jamestown. SR 49 runs directly through downtown Sonora and serves as the main street through the northern half of the city. SR 49 is generally a two-lane highway through the County.

State Route 108 (SR 108). A state highway that runs northeast from the city of Modesto in the California Central Valley to US Route 395 in Mono County. SR 108 runs concurrent with SR 49 and SR 120 near Jamestown and the City of Sonora in Tuolumne County. Throughout the County, SR 108 is generally a two-lane highway, with four-lane divided segments in more mountainous areas. SR 108 provides the City of Sonora with an important link to the Central Valley as well as to smaller communities in the eastern portion of the County.

State Route 120 (SR 120). An East-West state highway in Northern California that runs from San Joaquin County to US Route 6 in Mono County. In Tuolumne County, SR 120 runs concurrent with SR 49 near Chinese Camp, and with SR 108 from Yosemite Junction to the western County line. SR 120 has a route break in Tuolumne County when it reaches Yosemite National Park; thereafter, the route becomes a park service road under the jurisdiction of the National Park Service. In Tuolumne County, SR 120 alternates between a two-lane expressway and a two-lane conventional highway.

State Route 132 (SR 132). A state highway that runs from the east from Modesto/Waterford in the Central Valley through LaGrange and ends in Mariposa County. A small portion of this highway runs through Tuolumne County near LaGrange and County Highway J59.

Airports and Rail.

Tuolumne County has two public airports, Columbia Airport and Pine Mountain Lake Airport. Columbia Airport provides service to Columbia and surrounding areas in northwestern Tuolumne County, including a fly-in campground. Pine Mountain Lake Airport provides service to the area surrounding Pine Mountain Lake near Groveland in southwestern Tuolumne County.

The Sierra Railroad runs between Standard in Tuolumne County and Oakdale in Stanislaus County, where it connects with the Southern Pacific and Santa Fe Railroads. The Sierra Railroad has 49 miles of track that has been in operation since 1897 and connects the local economy and lumber industry to distant markets. The railroad also provides historical excursions and scenic opportunities. However, the condition of the track has been in decline since 1980 when freight usage decreased substantially. Modern capacity freight cars are not able to access lumber mills and passenger trains have been curtailed due to safety concerns. Trains that are operational on this line is for recreational use from the Historic Railtown State Park out of Jamestown, CA.

b. Existing Traffic Conditions.

Level of Service Definitions. Level of Service (LOS) is used to measure the operating conditions of an intersection or a roadway segment by considering factors such as traffic volume and capacity. LOS standards are used by Tuolumne County, Caltrans, and local agencies to assess street and state route system performance. LOS is a qualitative measure of traffic operating conditions. LOS A through F are assigned to an intersection or roadway segment, with LOS A indicating very good operations with little congestion and LOS F indicating poor operations with heavy congestion. LOS A through C indicate a minimal or acceptable delay. LOS D indicates high density, stable flow with noticeable congestion. LOS E indicates that the roadway is at or near capacity with frequently intolerable delays and LOS F indicates that traffic volumes are higher than the capacity of the roadway resulting in queuing and excessive delays.

Pursuant to Implementation Program 2.A.h of the proposed General Plan Update, the minimum LOS standard for Minor Collectors, Major Collectors, Rural Arterials and Urban Streets (County facilities) is LOS D, unless an exception is made by the County. The minimum LOS standard for local and residential roads is LOS C. The minimum peak hour LOS standard for all County intersections is LOS D. Based on direction from Caltrans and County staff, the minimum LOS standard for all Caltrans facilities (roadways and intersections) is LOS D.

The LOS threshold volumes for roadway segments are defined in Table 4.15-1 and the LOS threshold volumes for intersections are defined in Table 4.15-2.

Table 4.15-1. TCTC Generalized Roadway ADT LOS Lookup Table

Area Type	Roadway Type	Type #	Maximum Two-Way Average Daily Traffic (ADT)				
			LOS A	LOS B	LOS C	LOS D	LOS E
ROLLING	Rural Arterial (4-lane) Divided	1	6,240	12,480	18,720	26,520	31,200
	Rural Arterial (4-lane) Undivided	2	4,820	9,640	14,460	20,485	24,100
	Rural Minor Arterial (4-lane)	3	6,080	12,160	18,240	25,840	30,400
	Rural Minor Arterial (with left-turn lane)	4	4,600	9,200	13,800	19,550	23,000
	Rural Minor Arterial (2-lane)	5	3,120	6,240	9,360	13,260	15,600
	Major Collector (34-36 ft)	6	3,420	6,840	10,260	14,535	17,100
	Major/Minor Collector (23-32 ft)	7	2,900	5,800	8,700	12,325	14,500
	Major/Minor Collector (20-23 ft)	8	2,590	5,180	7,770	11,008	12,950
	Major/Minor Collector (18-20 ft)	9	2,300	4,600	6,900	9,775	11,500
	Major/Minor Collector (less than 18 ft)	10	1,920	3,840	5,760	8,160	9,600
	Local Road	11	1,920	3,840	5,760	8,160	9,600
MOUNTAINEOUS	Rural Arterial (4-lane) Divided	101	5,810	11,610	17,410	24,670	29,020
	Rural Arterial (4-lane) Undivided	102	4,490	8,970	13,450	19,060	22,420
	Rural Minor Arterial (4-lane)	103	5,660	11,310	16,970	24,040	28,280
	Rural Minor Arterial (with left-turn lane)	104	4,280	8,560	12,840	18,190	21,390
	Rural Minor Arterial (2-lane)	105	2,910	5,810	8,710	12,340	14,510
	Major Collector (34-36 ft)	106	3,190	6,370	9,550	13,520	15,910
	Major/Minor Collector (23-32 ft)	107	2,700	5,400	8,100	11,470	13,490
	Major/Minor Collector (20-23 ft)	108	2,410	4,820	7,230	10,240	12,050
	Major/Minor Collector (18-20 ft)	109	2,140	4,280	6,420	9,100	10,700
	Major/Minor Collector (less than 18 ft)	110	1,790	3,580	5,360	7,590	8,930
	Local Road	111	1,790	3,580	5,360	7,590	8,930
URBAN	4-Lane Freeway	201	28,000	43,200	61,600	74,400	80,000
	3-Lane Freeway	202	10,100	20,200	30,300	42,925	50,500
	2-Lane Freeway + Auxiliary Lanes	203	8,392	16,784	25,176	35,666	41,960
	2-Lane Freeway	204	6,680	13,360	20,040	28,390	33,400
	4-Lane Expressway	205	24,000	28,000	32,000	36,000	40,000
	2-Lane Expressway	206	12,000	14,000	16,000	18,000	20,000
	6-Lane Divided Arterial (with left-turn lane)	207	32,000	38,000	43,000	49,000	54,000
	4-Lane Divided Arterial (with left-turn lane)	208	22,000	25,000	29,000	32,500	36,000
	4-Lane Undivided Arterial (no left-turn lane)	209	18,000	21,000	24,000	27,000	30,000
	2-Lane Principal/Minor Arterial (with left-turn lane)	210	2,900	7,700	14,300	20,100	31,300
	2-Lane Principal/Minor Arterial (no left-turn lane)	211	2,900	7,200	11,900	16,100	24,200
	2-Lane Major/Minor Collector (with left-turn lane)	212	3,400	6,900	11,600	15,800	29,400
	2-Lane Major/Minor Collector (no left-turn lane)	213	2,700	5,600	9,200	12,800	23,500
	2-Lane Local Street	214	2,300	4,900	8,400	11,400	21,200

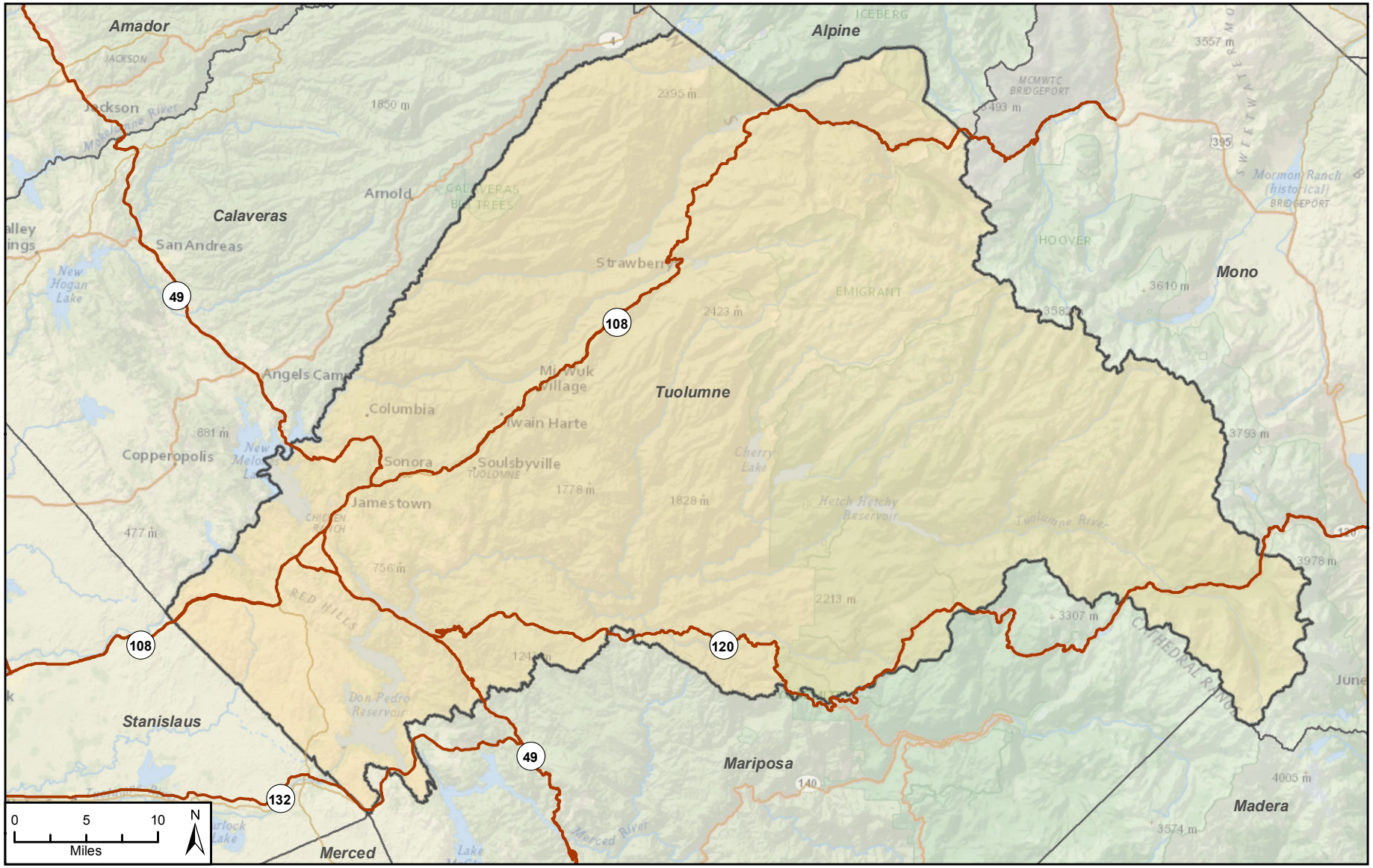
From Traffic Study, Appendix C ADT = Average Daily Traffic.
Notes: 1. Values shown corresponding to LOS A through E are roadway ADT traffic volumes
2. Collector width is measured from the edge of pavement to the edge of pavement
3.Roadways with continuous grade steeper than 6% or above 4,000 ft. elevation should use mountainous LOS thresholds
4. Site Specific LOS may be necessary
5. Peak Hour LOS threshold is assumed to be 10% of the daily traffic volume unless site specific analysis shows a different ratio
6. Examples LOS A (0.20 of capacity), LOS B (0.21 to 0.40 of capacity), LOS C (0.41 to 0.60 of capacity), LOS D (0.61 to 0.85 of capacity), LOS E (0.86 to 0.92 of capacity)
All volumes thresholds are approximate and assumes average roadway characteristics. Actual threshold volume for each Level of Service listed above may vary depending on variety of factors (but not limited to) roadway curvature and grade, intersection or interchange spacing, driveway spacing, percentage of trucks, RVs, and other heavy vehicles, travel lane widths, speed limits, signal timing characteristics, on-street parking, volume of cross traffic , and pedestrians, etc.

Table 4.15-2 Level of Service Definitions and Criteria for Intersections

LOS	Flow Type	Operational Characteristics	Intersection Control Delay (seconds/vehicle)	
			Signal Control	2-Way-Stop or All-Way Stop Control
A	Stable Flow	Free-flow conditions with negligible to minimal delays. Excellent progression with most vehicles arriving during the green phase and not having to stop at all. Nearly all drivers find freedom of operation.	≤10	0-10
B	Stable Flow	Good progression with slight delays. Short cycle-lengths typical. Relatively more vehicles stop than under LOS A. Vehicle platoons are formed. Drivers begin to feel somewhat restricted within groups of vehicles.	>10-20	>10-15
C	Stable Flow	Relatively higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant, although many still pass through without stopping. Most drivers feel somewhat restricted.	>20-35	>15-25
D	Approaching Unstable Flow	Somewhat congested conditions. Longer but tolerable delays may result from unfavorable progression, long cycle lengths, and/or high volume-to-capacity ratios. Many vehicles are stopped. Individual cycle failures may be noticeable. Drivers feel restricted during short periods due to temporary back-ups.	>35-55	>25-35
E	Unstable Flow	Congested conditions. Significant delays result from poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures occur frequently. There are typically long queues of vehicles waiting upstream of the intersection. Driver maneuverability is very restricted.	>55-80	>35-50
F	Forced Flow	Jammed or grid-lock type operating conditions. Generally considered to be unacceptable for most drivers. Zero or very poor progression, with over-saturation or high volume-to-capacity ratios. Several individual cycle failures occur. Queue spillovers from other locations restrict or prevent movements.	>80	>50

Source: Tuolumne County GP and RTP Update Traffic Study, Wood Rogers (September 2015)

Existing Traffic Operations. Figures 4.15-1 and 4.15-2 show key travel corridors in Tuolumne County, local State Routes and key County and city streets and roads. Traffic data and vehicle counts from these roads were used to find average daily traffic (ADT) for roadways and peak hour delays for intersections and calculate LOS for each of the 150 roadway segments and 41 intersections that were studied. Traffic data and vehicle counts were obtained through new studies at various intersections and roadways and supplemented with data previously collected by Tuolumne County and Caltrans published traffic volumes on the Caltrans website (Wood Rodgers, September 2015).



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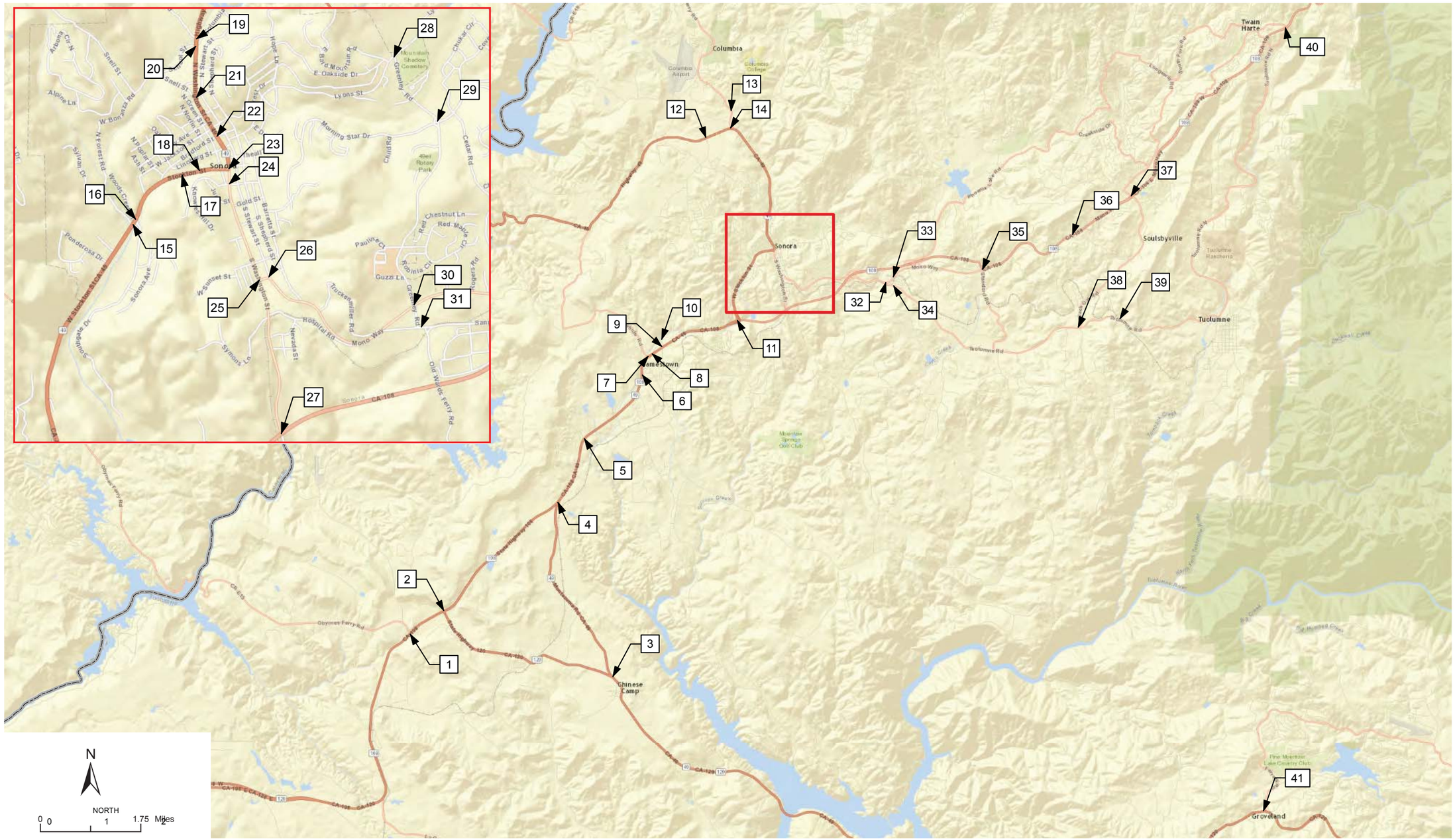
Regional Setting and State Route System

Figure 4.15-1



Tuolumne County Street and Highway Network

Source: Wood Rodgers, 2015

Figure 4.15-2

As shown in Table 4.15-3, all but seven of the 152 studied roadway segments currently operate at the acceptable LOS D conditions or better, under existing traffic volumes. The conditions for all 152 roadway segments (including the 143 segments that are currently operating at acceptable LOS conditions) is provided in Appendix C of the EIR (Traffic Study), see Appendix Table 4.

Table 4.15-3
Existing Roadways with Unacceptable LOS

#	Roadway Segment	Type #	LOS Std.	AADT	LOS
24	SR 49 b/w Bell Mooney Rd and South Jct Main St	211	D	**19,300**	**E**
27	SR 49 b/w Fifth Ave and East Jct SR 108	210	D	**23,500**	**E**
31	SR 49 b/w Washington St and Dodge St	211	D	**18,500**	**E**
32	SR 49 n/o Dodge St	211	D	**19,400**	**E**
33	SR 49 s/o N Washington St / Columbia Way	211	D	**16,100**	**E**
52	Mono Way w/o Sanguinetti Rd	210	D	**22,205**	**E**
116	S Washington St b/w Restano Way & Church St	212	D	**18,595**	**E**

Notes: AADT = Annual Average Daily Traffic, LOS = Level of Service
Source: Tuolumne County GP and RTP Update Traffic Study, Wood Rogers (September 2015). See Appendix C for full Traffic Study.

As shown in Table 4.15-4, eleven of the 41 studied intersections do not meet the acceptable LOS D standard or better, under existing traffic conditions. Each of the unacceptable eleven intersections has an LOS of E or F for the AM peak hour and/or the PM peak hour. The other 30 intersections that currently have acceptable LOS standards are provided in Appendix C of the EIR (Traffic Study), see Appendix Table 3.

Table 4.15-4
Existing Intersections with Unacceptable Peak Hour LOS

#	Intersection	Control Type	LOS Std.	AM Peak Hour		PM Peak Hour	
				Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
5	SR 49-SR 108 & Chicken Ranch Rd	TWSC	D	24.5	C	**47.2**	**E**
8	Main St/Jamestown Rd & SR 49-SR 108	TWSC	D	**93.5**	**F**	**125.1**	**F**
9	5th Ave & SR 49-SR 108	TWSC	D	**232.2**	**F**	**429.6**	**F**
11	SR 49-SR 108/SR 108 & SR 49 (Stockton Rd)	TWSC	D	**36.9**	**E**	**69.6**	**F**
13	Parrotts Ferry Rd & Sawmill Flat Rd	TWSC	D	**41.0**	**E**	**54.3**	**F**
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	TWSC	D	**134.4**	**F**	**160.5**	**F**
20	SR 49 (N Washington St) & School St	TWSC	D	**43.5**	**E**	**44.1**	**E**
23	S Washington St/SR 49 (N Washington St) & SR 49 (Stockton Rd)	Signal	D	**63.1**	**E**	**58.1**	**E**
24	S Washington St & Church St	TWSC	D	**64.1**	**F**	**101.4**	**F**
38	Woodham Carne Rd/Black Oak Rd & Tuolumne Rd	TWSC	D	**43.0**	**E**	28.9	D
39	Tuolumne Rd & Soulsbyville Rd	TWSC	D	**52.9**	**F**	23.7	C

Notes:
1. TWSC = Two-Way-Stop Control, AWSC = All-Way-Stop Control
2. For TWSC intersection, worst-case movement delays (in seconds/vehicle) is indicated. "Average" control delays (in seconds/vehicle) are indicated for AWSC and signal-controlled intersections. Delays reported in above table are from Synchro 8 software.
3. Bold numbers and letters represent condition where intersection does not meet minimum acceptable standards.
Source: Tuolumne County GP and RTP Update Traffic Study, Wood Rogers (September 2015). See Appendix C for full Traffic Study.

c. Alternative Transportation Systems. Tuolumne County public transportation is provided by Tuolumne County Transit. Bus service is provided along six routes Monday-Friday. On-demand, dial-a-ride service is available seven days a week. Additionally, Tuolumne County Transit operates SkiBUS and partners with Yosemite National Park to provide Yosemite Area Regional Transportation System (YARTS). SkiBUS provides service from Sonora to Dodge Ridge Ski Resort throughout the ski season. YARTS operates from May to September and connects Sonora, Jamestown, Groveland, and Buck Meadows with Yosemite Valley.

Pedestrian and bicycle facilities are limited within Tuolumne County due to steep terrain and the rural setting of the area. Sidewalks are typically intermittent along business fronts in community centers and there is a designated bicycle path fronting the Crossroads Shopping Center in Sonora. The *Tuolumne County Transportation Council Bikeways and Trails Plan* does encourage the construction of Class I and Class II bicycle facilities to allow for bicycle and pedestrian safety.

Class I Bike Path. Provides a completely separate right of way designated for exclusive use of bicycles and pedestrians with cross-flows by motorists minimized.

Class II Bike Lanes. Provides a restricted right-of-way through signs and pavement striping designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle cross-flows by pedestrians and motorists permitted. In California, the Manual on Uniform Traffic Control Devices (MUTCD) sign #R3-17 normally designates class II facilities

e. Regulatory Setting. The Tuolumne County Transportation Council (TCTC) serves as the state-designated Regional Transportation Planning Agency (RTPA). As mandated by Chapter 2.5, Section 65080 et. seq. of the California Government Code, each RTPA must prepare an RTP by September 1, every five years. TCTC is in the process of developing a new RTPA in 2015 with adoption likely in 2016. The General Plan and RTP are intended to be consistent with each other.

4.15.2 Impact Analysis

a. Methodology and Significance Thresholds. The following reviews the traffic analysis scenarios and key elements of the traffic methodology and thresholds used in the EIR analysis.

Existing Traffic Volumes. Existing conditions were obtained for the Tuolumne County roadway system from TCTC and Wood Rodgers traffic count data, prior Tuolumne County studies, and Caltrans traffic volumes published on the Caltrans website. The current Annual Average Daily Traffic (ADT) volumes are shown in Appendix Table 3 (see Appendix C of the EIR) (Traffic Study).

Roadway ADT volumes represent the level of traffic that travels on a specific roadway segment over an average 24-hour period. The AM peak hour is defined as the highest one hour of traffic flow counted between 7:00 AM and 9:00 AM on a typical weekday while the PM peak hour is defined as the highest one hour of traffic flow counted between 4:00 PM and 6:00 PM on a typical weekday. The current ADT volumes for roadway segments in Tuolumne County are

shown in Appendix Table 4 and AM and PM peak hour traffic volumes are shown in Appendix Table 3 (see Appendix C, Traffic Study). As described in Section 4.15.1(b) and depicted in Table 4.15-3, all of the roadway segments, except for seven, are currently operating at acceptable LOS "D" conditions or better under existing conditions. As described in Section 4.15.1(b) and depicted in Table 4.15-4, all of the intersections, except for 11 are currently operating at acceptable LOS "D" or better under existing conditions.

Year 2030 Traffic Volumes. Year 2030 traffic impacts were based off the assumption that a number of intersection and roadway improvement projects (associated with the RTP) are completed by 2030. Traffic volumes were estimated based on projected 2030 growth and development in the General Plan Update, referred to as the Distinctive Communities Alternative Growth Scenario in the Traffic Study. Road improvements include Tier 1a improvement projects as well as short-term and mid-term capital improvement projects. Improvements, including widening road segments and planned intersection modifications, will aid in the reduction of congestion by 2030.

Year 2040 Traffic Volumes. Year 2040 traffic impacts were based off the assumption that additional improvements will be completed by 2040 in addition to those completed by 2030. Traffic volumes were developed assuming build-out of the proposed General Plan Update at 2030 and 2040 growth levels and is referred to as the Distinctive Communities Alternative Growth Scenario in the traffic study. The projected impacts are the result of increased traffic, population growth and expected developments. Additional road improvements, including widening road segments and planned intersection modifications, will aid in the reduction of 2040 congestion levels. Transportation improvements, such as widening roadways, are anticipated to occur through 2040.

Traffic Performance Standards. Intersections and roadways in Tuolumne County must meet LOS standards. A minimum acceptable LOS standard of either LOS C, for all local roads, or LOS D, for all remaining County and Caltrans facilities is used in this analysis, and all intersections must have a minimum LOS of D. The Wood Rodgers Traffic Study used a peak-hour LOS of D as the threshold for acceptable traffic operations for the Tuolumne County road network.

Vehicle Miles Traveled (VMT) is another performance indicator used to determine potential impacts to the transportation system. Population growth, urbanization, and the volume of average daily traffic generated in Tuolumne County will increase with or without implementation of the General Plan Update as a result of a range of demographic and economic factors independent of transportation policies. The Wood Rodgers Traffic Study calculated VMT current and future conditions, with and without the proposed project.

Significance Thresholds. Impacts relating to transportation and circulation would be considered potentially significant if development allowed under the General Plan Update would:

- *Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system*
- *Conflict with an applicable congestion management program*
- *Result in a change of air traffic patterns*
- *Substantially increase traffic-related hazards due to a design feature or incompatible uses*

- *Result in inadequate emergency access*
- *Conflict with adopted policies relating to alternative transportation modes, including transit, walking, and bicycling*

Air traffic-related hazards are analyzed in Section 4.8, *Hazards and Hazardous Materials* and those impacts would be less than significant.

b. Project and Cumulative Impacts.

Impact TC-1 Development facilitated by the General Plan Update would generate vehicle trips that would result in deficiencies to the local circulation system based on a threshold of LOS "D." Roadway improvements planned in the proposed Regional Transportation Plan are intended to address projected deficiencies for roadway segments within the County. However, after identified improvements are implemented, two roadways will still have an LOS of less than "D." Impacts are Class I, *significant and unavoidable*.

Development facilitated by the proposed General Plan Update would increase traffic on the Tuolumne County roadway system. Impacts to roadway capacities resulting from estimated buildout under the draft General Plan Update are discussed below. Table 4.15-5 presents the Year 2030 and Year 2040 roadway average ADT and LOS for the key roadway segments in Tuolumne County that would have LOS conditions of either E or F, which would not meet the "Acceptable" standard of LOS D or better. Improvements, including widening road segments and/or planned intersection modifications would aid in the reduction of congestion on the majority of roadways in Tuolumne County. Planned improvements, such as widening roadways, are anticipated to occur through 2040.

The roadway segments of SR 49 between Bell Mooney Road and West Junction Main Street, SR 49 between Fifth Avenue and East Junction SR 108 (East of Golf Links Road), SR 49 (Washington Street) between Stockton Road and Dodge Street, SR 49 north of Dodge Street to Columbia Way, SR 49 south of North Washington Street / Columbia Way, Mono Way west of the western terminus of Sanguinetti Road, and South Washington Street between Restano Way and Church Street are currently operating at unacceptable levels, below LOS "D," as shown in Table 4.15-3. However, with programmed improvements all but five roadway segments would be improved to an acceptable standard of at least LOS "D." Programmed improvements include the widening of SR 108 and the construction of the planned Greenley Road Extension. These improvements would accommodate traffic levels on the roadways that are not operating at an acceptable LOS. These improvements would be implemented in two stages, with the first stage being completed by 2030 and the second by 2040.

Despite the roadway improvements, the following roadway segments would not meet the minimum LOS "D" with the proposed build-out of the proposed General Plan Update and the associated roadway improvements.

- Roadway 5- SR 108 between SR 49 (Stockton Road) and South Washington Street/Lime Kiln Road

- Roadway 31- SR 49 (Washington Street) between Stockton Road and Dodge Street
- Roadway 52- Mono Way west of Sanguinetti Road
- Roadway 69- Greenley Road between Cabezut Road/Morning Star Road and Delnero Drive
- Roadway 116- South Washington Street between Restano Way & Church Street

Table 4.15-5

Roadway Segments with an Unacceptable LOS

with Implementation of the General Plan Update

No.	Roadway/Highway Segment	LOS Type#	ADT 2030	LOS* 2030	ADT 2040	LOS * 2040	Acceptable
5	SR 108 b/w SR 49 (Stockton Rd) and S Washington St/Lime Kiln Rd	210	22,067	**E**	22,966	**E**	**NO**
31	SR 49 b/w Stockton Rd and Dodge St	211	16,883	**E**	17,924	**E**	**NO**
52	Mono Way w/o Sanguinetti Rd	210	20,777	**E**	22,416	**E**	**NO**
69	Greenley Rd b/w Cabezut Rd/ Morning Star Rd & Delnero Dr	210	15,500	D	15,932	**E**	**NO**
116	S Washington St b/w Restano Way & Church St	212	16,678	**E**	17,706	**E**	**NO**

Source: Tuolumne County GP and RTP Update Traffic Study, Wood Rogers (September 2015). See Appendix C for full Traffic Study and for all other Roadway Segments with "Acceptable" LOS (Appendix Tables 10 and 11).

In addition, to alleviate congestion, the Circulation Element of the General Plan Update includes a range of policies and actions intended to reduce overall traffic volume and enhance traffic flow throughout the County. Goal 2.A of the Circulation Element states: *Preserve the County's substantial investment in the existing road system and provide for the long-range planning and development of the County's transportation system for the safe and efficient movement of people and goods.* The General Plan supports this goal through stated policies, listed below.

Policy 2.A.1 — *Assess the needs of street and road users regularly through the land development application review process.*

Policy 2.A.2 — *Direct the Community Resources Agency, in conjunction with Caltrans, to regularly conduct assessments of the current status of the highway system to determine the current level of needs in the system, and report those needs to the Board of Supervisors.*

Policy 2.A.3 — *Prioritize expenditures of limited public funds for maintenance based upon a roadway's traffic volume and functional classification.*

Policy 2.A.4 — *Evaluate and analyze the traffic impacts of proposed land uses in relation to stated goals and objectives of the General Plan since growth policies regarding land use decisions directly affect the existing and future transportation system.*

Policy 2.A.5 — *Set forth recommendations for the future of the County's streets and highways system in each update of the Regional Transportation Plan.*

Policy 2.A.6	*Coordinate with State and Federal agencies, the Tuolumne County Transportation Council and developers to secure financing in a timely manner for all components of the transportation system to achieve and maintain adopted level of service standards.*
Policy 2.A.7	*Evaluate the need for the provision of County roads to serve as alternative routes to the State Highway network within the County's boundaries and, if warranted, pursue funding for and construction of and/or improvements to the identified alternative routes.*
Policy 2.A.9	*Promote flexibility in the application of parking standards to support mixed-use and transit-oriented development.*
Policy 2.A.10	*Consider developing a two-tier Traffic Impact Mitigation Fee Schedule.*
Policy 2.A.11	*Support implementation of the Rural Sustainable Communities Strategy as identified in the County's Regional Transportation Plan.*
Policy 2.A.13	*Support the development of high density housing, commercial and offices along high priority transit routes.*

In addition, the *Jamestown, Columbia, East Sonora, Tuolumne, and Mountain Springs Community Plans* contain the following goals and policies, the implementation of which are intended to address traffic-related issues in each of those community plan areas:

Jamestown Community Plan:

Policy 14.E.1	*Provide a transportation system that is safe, efficient, convenient and coordinated to meet the needs of the Jamestown community in regard to both the transport of people and material to the degree that it is compatible with other community resource needs.*
Policy 14.E.2	*Provide transportation facilities which will facilitate the future growth needs of the Jamestown community.*
Policy 14.E.3	*Develop a transportation plan in the Jamestown community that is financially feasible.*

Columbia Community Plan:

Policy 15.D.1	*Provide a circulation system that is designed to be safe and efficient and meets the travel needs of Columbia residents, businesses, and visitors.*
Policy 15.D.2	*Provide mechanisms for new development to share in the cost of transportation facilities, both motorized and non-motorized, which will facilitate the future growth needs of the Columbia community.*

East Sonora Community Plan:

Policy 16.E.3 *Support the continued provision of the County's transportation system.*

Tuolumne Community Plan:

Goal 17.B *Promote safe and efficient transportation systems consistent with community character.*

Policy 17.E.1 *Identify new transportation facilities and improvements to existing facilities in anticipation of projected growth.*

Policy 17.E.2 *Identify and adopt routes for future roads to create a street network to disperse local traffic throughout the community, alleviate congestion and improve safety at critical intersections and improve traffic flow along collector and local roads.*

Mountain Springs Community Plan:

Goal 3.A *To Provide a circulation system that adequately supports planned land uses.*

Policy 3.A.1 *The Community Plan should provide a circulation system that maintains desired levels of service on all streets and intersections.*

Scheduled improvements will improve LOS to acceptable levels for five of the seven roadway segments that do not currently meet LOS standards. The remaining two roadway segments would not meet minimum LOS standards with implementation of scheduled transportation improvements and policies compliance. The segment of SR 49/Washington Street south of Dodge Street and the segment of Mono Way west of Sanguinetti Road are expected to exceed the LOS "D" ADT threshold by 2030 and 2040 with the build-out of the proposed General Plan Update with 2030 and 2040 growth. Because these two road segments would not meet the LOS "D" threshold for roadway operations, impacts would be potentially significant at these two road segments.

Mitigation Measures. Implementation of the following mitigation measures would reduce level of service impacts at the following roadway segments:

- Roadway 5- SR 108 between SR 49 (Stockton Road) and South Washington Street/Lime Kiln Road
- Roadway 31- SR 49 between Stockton Road and Dodge Street
- Roadway 52- Mono Way west of Sanguinetti Road
- Roadway 69- Greenley Road between Cabezut Road/Morning Star Road and Delnero Drive
- Roadway 116- South Washington Street between Restano Way & Church Street

TC-1(a) **Roadway 5 – Widen the Segment to Four Lanes.** Widen the segment segment of SR 108 between SR 49 (Stockton Road) and South Washington Street/Lime Kiln Road to four lanes in order to improve

conditions to LOS C.

TC-1(b) **Roadway 31 - Construct the Western Bypass.** Construct the Western Bypass which would extend from SR 108/49 (south of Jamestown) to Rawhide Road in order to reduce traffic on the segment of SR 49 between Stockton Road and Dodge Street. In addition, another feasible improvement measure is to improve alternative modes of transportation along Roadway 31, such as transit service or bicycle and pedestrian infrastructure.

TC-1(c) **Roadway 52, Roadway 69 and Roadway 116 - Construct the North-South Connector Phase 2.** Construct the North-South Connector Phase 2 which would extend Fir Drive from Mono Way to the Greenley Road Extension, in order to reduce traffic on the segment of Mono Way west of Sanguinetti Road, the segment of Greenley Road between Cabezut Road/Morning Star Road and Delnero Drive, and the segment of South Washington Street between Restano Way and Church Street.

Another feasible improvement measure is to improve alternative modes of transportation along Roadway 52 and Roadway 116, such as transit service or bicycle and pedestrian infrastructure. In addition, for Roadway 69, one additional feasible improvement measure is to construct the Cabezut Road Extension from the Fir Drive Road Extension to Phoenix Lake Road, which may reduce volumes on this segment of Greenley Road.

Significance After Mitigation. Impacts at the five roadways segments would be less than significant with the implementation of mitigation measures TC-1(a) through TC-1(c). However, these improvements may not be feasible due to physical constraints, financial reasons, or jurisdictional control (as these roadways segments and improvements may be outside of the County's direct control and subject to City of Sonora or Caltrans approval and implementation). In addition, these mitigation measures may have secondary environmental impacts (construction impacts related to air quality, noise, temporary closure of roads or pedestrian routes, biological and cultural resources) that would need to be analyzed further on a project level analysis. While impacts to all other roadway segments would be less than significant with the incorporation of planned roadway improvements, without the implementation of mitigation, impacts to roadways would be significant and unavoidable.

Impact TC-2 **Buildout of the General Plan Update would incrementally increase traffic volumes at intersections in Tuolumne County. Intersection improvements planned in the proposed General Plan Update are intended to address the preponderance of projected deficiencies for intersections within the County. However, following implementation of planned improvements, four intersections would continue to operate at an LOS of less than "D" in 2040. Therefore, impacts at these intersections are Class I, *significant and unavoidable*.**

Build-out of the General Plan Update to accommodate projected 2030 and 2040 growth would contribute to congestion at intersections throughout Tuolumne County. Programmed improvements to intersections are planned to be completed in two phases, by 2030 and 2040. These improvements would improve the LOS of all but six intersections to at or better than "D" by 2030 and all but four by 2040. See Table 4.15-6 for Peak Hour Delay(s) and LOS for those intersections that would not have an acceptable LOS 2030 or 2040. See Appendix C, Traffic Study, for the full Appendix Tables 7 and 8 which also list the other intersections that would operate at acceptable levels (LOS D or better).

Table 4.15-6
Intersections With Unacceptable Levels of Service (2030/2040)
with Implementation of the General Plan Update

No.	Intersection Name	2030 AM Peak Hour		2030 PM Peak Hour		2040 AM Peak Hour		2040 PM Peak Hour		Acceptable?
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	
13	Parrotts Ferry Rd & Sawmill Flat Rd	76.9	**F**	113.8	**F**	8.7	A	17.2	B	**No in 2030** Yes in 2040
19	SR 49 (N Washington St)/SR 49 & N Washington St/Columbia Way	56.0	**F**	61.9	**F**	59.9	**F**	67.9	**F**	**No**
23	S Washington St/SR 49 (S Washington St) & SR 49 (Stockton Road)	46.7	**D**	40.7	**D**	56.1	**E**	48.5	**D**	**No**
24	S Washington St & Church St	49.0	**E**	71.1	**F**	57.3	**F**	91.2	**F**	**No**
38	Woodham Carne Rd/Black Oak Rd & Tuolumne Rd	225.9	**F**	48.3	**E**	30.3	C	25.2	C	**No in 2030**– Yes in 2040
39	Tuolumne Rd & Soulsbyville Rd	73.2	**F**	26.6	**D**	89.7	**F**	28.6	**D**	**No**

Source: Tuolumne County GP and RTP Update Traffic Study, Wood Rogers (September 2015). See Appendix C for full Traffic Study.

The intersections at Parrotts Ferry Road/Sawmill Flat Road and Woodham Carne Road/Black Oak Road & Tuolumne Road are projected to operate at an LOS below "D" in 2030 at both the AM Peak Hour and PM Peak Hour. The TCTC has planned for a new traffic signal at the intersection at Parrots Ferry Road/Sawmill Flat Road. The project is included on the TCTC's list of long-range capital improvement projects; however, it is not expected to be completed until the year 2040. Upon the project's completion (by the year 2040), the LOS at the intersection would be at or better than LOS D.

The intersection at Woodham Carne Road/Black Oak Road & Tuolumne Road is also on the TCTC's list of long-range capital improvements for a new traffic signal. The project is expected to be completed by 2040, and would improve the LOS to at or better than LOS D upon its completion.

Four intersections would not meet LOS standards by 2040 with scheduled improvements:

- SR 49 (N Washington Street)/SR 49 & N Washington Street/Columbia Way
- S Washington Street/SR 49 (S Washington Street) & SR 49 (Stockton Road)
- S Washington Street & Church Street
- Tuolumne Road & Soulsbyville Road

These four intersections would all operate at either LOS of E or F during Peak Hours. Impacts would be potentially significant at these four intersections.

Mitigation Measures. Implementation of the following mitigation measures would reduce impacts at the four identified intersections.

TC-2(a) **Installation of a traffic signal or a roundabout at SR 49 (N Washington Street)/SR 49 & N Washington Street/Columbia Way.** A traffic signal shall be installed at the intersection of SR 49 (N Washington Street)/SR 49 & N Washington Street/Columbia Way. If a traffic signal is not feasible or proposed, a roundabout shall be installed at the intersection in order to improve conditions.

TC-2(b) **Construction of a southbound right turn pocket at South Washington Street/SR 49 (South Washington Street) and SR 49 (Stockton Road) intersection.** A right turn pocket shall be constructed for southbound traffic at the South Washington Street/SR 49 (South Washington Street) and SR 49 (Stockton Road) intersection. If this is not feasible due to physical constraints, construction of the Western Bypass, which would extend from SR 108/49 (south of Jamestown) to Rawhide Road, may reduce traffic on this segment of SR 49.

TC-2(c) **Installation of a traffic signal or conversion of westbound approaches to right-turn-only at intersection of South Washington Street/Church Street.** A traffic signal shall be installed at the intersection of South Washington Street and Church Street. If this is not feasible due to the proximity of another signalized intersection, then the westbound Church Street approach shall be converted to right-turn-only during peak hours. The eastbound approach is currently restricted to right-turn-only during peak hours.

TC-2(d) **Construction of a two-way left-turn median or installation of a traffic signal at the intersection of Tuolumne Road at Soulsbyville Road.** A two-way left-turn median shall be installed on Tuolumne Road at Soulsbyville Road, to allow southbound left movement to have two-stage gap-acceptance. An alternative would be to install a traffic signal at the intersection of Tuolumne Road and Soulsbyville Road.

Significance After Mitigation. Impacts at the four intersections would be less than significant with the implementation of mitigation measures TC-2(a), TC-2(b), TC-2(c), and TC-2(d) and all other intersections would have less than significant impacts with the incorporation of planned intersection improvements. However, these mitigations may not be possible due to physical constraints, financial reasons, or jurisdictional control (as these intersections and improvements may be outside of the County's direct control and subject to either City of Sonora or Caltrans approval and implementation). In addition, these mitigation measures may have secondary environmental impacts (construction impacts related to air quality, noise, temporary closure of roads or pedestrian routes) that would need to be analyzed further on a project level analysis. Without the incorporation of the stated mitigation measures, impacts would be significant and unavoidable.

Impact TC-3 **The General Plan Update would not accommodate design features that would create significant traffic hazards. While potential new development along highly traveled thoroughfares and in existing community plan areas may incrementally increase hazards for**

pedestrians and bicyclists, implementation of proposed policies relating to traffic calming and improving walkability and bikeability would reduce such impacts to a Class III, *less than significant*, level.

The proposed General Plan Update would create defined, compact communities built around urban cores, including Jamestown, Columbia, East Sonora, and Tuolumne. Development facilitated by the General Plan would be concentrated along a select number of arterials, major collectors, and transit corridors. Development would be concentrated around major roads, including SR 49, SR 108, SR 132 and SR 120. The General Plan Update is designed to decrease auto dependency and increase pedestrian, bicycle, and transit activity. This increases the potential hazards for pedestrians and bicyclists in the County. However, the proposed General Plan Update includes a range of goals and policies that are specifically intended to increase pedestrian and bicyclist safety and walkability throughout the County. These include:

Goal 2.A	*Preserve the County's substantial investment in the existing road system and provide for the long-range planning and development of the County's transportation system for the safe and efficient movement of people and goods.*
Policy 2.A.8	*Require road planning documents to include, where feasible, details showing pedestrian and bicycle lane infrastructure and alternative transportation connectivity, such as bus stop and dedicated bus pullout areas.*
Policy 2.A.9	*Promote flexibility in the application of parking standards to support mixed-use and transit-oriented development.*
Goal 2.B	*Encourage the use of alternative means of transportation by providing safe bicycle and pedestrian facilities within urban growth boundaries and between communities thereby reducing road congestion which improves circulation, health and air quality within the County.*
Policy 2.B.1	*Actively investigate and seek alternative funding sources for bicycle and pedestrian facilities.*
Policy 2.B.2	*Construct bicycle and pedestrian facilities as soon as possible when funds become available.*
Policy 2.B.3	*Give special attention to the needs of pedestrians, bicyclists, and individuals with disabilities in the project design review process.*
Policy 2.B.4	*Maintain and expand, where possible and appropriate, the system of non-motorized connections that link neighborhoods to larger roadways, activity centers and nodes, businesses, community services, parks and recreational facilities, and transit stops and stations.*
Policy 2.B.5	*Require safe and adequate crossing facilities that minimize pedestrian exposure to vehicular traffic, such as curb extensions or refuge islands, wherever feasible.*

In addition, the Jamestown, Columbia, East Sonora, Tuolumne, and Mountain Springs Community Plans each contain policies to encourage the development of safe bicycle and pedestrian facilities and transportation systems.

Jamestown Community Plan:

Policy 14.E.10 *Encourage the development of bicycle and pedestrian transportation systems.*

Columbia Community Plan:

Policy 15.D.1 *Provide a circulation system that is designed to be safe and efficient and meets the travel needs of Columbia residents, businesses, and visitors.*

Policy 15.D.2 *Provide mechanisms for new development to share in the cost of transportation facilities, both motorized and non-motorized, which will facilitate the future growth needs of the Columbia community.*

Policy 15.D.3 *Encourage the development of bicycle and pedestrian systems.*

East Sonora Community Plan:

Policy 16.D.4 *Encourage master planned communities as a means of achieving innovative and creative developments. Said communities should be designed with a pedestrian focus.*

Policy 16.D.5 *Require new urban residential development to provide amenities such as pedestrian walkways, bicycle paths, street lights, landscaping, and recreational facilities.*

Policy 16.E.1 *Consider the incorporation of landscaped berms and medians to separate bicycle and pedestrian facilities from local collector roadways.*

Tuolumne Community Plan:

Policy 17.E.8 *Promote a pedestrian-friendly town core.*

Policy 17.E.12 *Continue to use the Tuolumne Bikeways and Trails Plan to guide construction of new biking, walking, and equestrian trails.*

Mountain Springs Community Plan:

Policy 3.B.1 *Provide a network of trails, bikeways, and sidewalks along roadways and within Open Space corridors, where appropriate.*

Implementation of proposed policies is expected to generally improve overall safety conditions for pedestrians and bicyclists throughout the County. Implementation of General Plan policies on any future development in existing community plan areas would also minimize traffic-related hazards associated with the development of those areas. With the non-motorized transportation policies of

the General Plan, hazards resulting from pedestrian and bicycling infrastructure gaps would be minimized. Therefore, impacts related to traffic safety as a result of development under the draft General Plan Update would be less than significant.

Mitigation Measures. None required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact TC-4 **Buildout of the General Plan would not incrementally increase the use of available public transit resources. The existing transit system is not projected to be significantly impacted. Pedestrian and bicycle facilities have planned improvements that would be completed in phases by the year 2030. Build-out of the General Plan Update would not have a significant impact on the existing pedestrian and bicycle infrastructure or the planned pedestrian and bicycle infrastructure. Impacts relating to the need to provide alternative transportation are Class III, *less than significant.***

It is anticipated that buildout of the General Plan Update would result in a net increase of 5,159 dwelling units, 938,000 square feet of commercial development, 196,000 square feet of industrial development, and 42 acres of public lands above existing conditions (year 2015). With buildout, it is estimated that the population within Tuolumne County will increase to a population of 63,242 residents in the year 2040. The General Plan Update does not promote growth to that level, however it prepares the County to accommodate for that growth. The plan prevents an unnecessarily scattered pattern of development that would place increased demands on public transit and alternative transportation infrastructure. Instead the General Plan Update is intended to encourage land use growth in/near the urbanized, high-density population centers such as the communities of Jamestown, Columbia, East Sonora, and Tuolumne, ultimately increasing density and improving circulation and multimodal connections. The Circulation Element of the General Plan emphasizes the creation of a coordinated transportation and pedestrian system that should be constructed as soon as funding is available. Additionally the *Tuolumne County Bikeways and Trails Plan* has prioritized bicycle and trail projects based on the perceived needs of the County (Tuolumne County Bikeways and Trails Plan). The project aims to meet the goals stated in the General Plan, including, but not limited to, developing routes to schools, linking bicycle and pedestrian facilities, improving pedestrian safety, and balancing multimodal transportation in roadway improvements (Tuolumne County General Plan Circulation Element). The General Plan Update includes a range of policies that aim to enhance alternative transportation in Tuolumne County. These include:

Policy 2.A.8 *Require road planning documents to include, where feasible, details showing pedestrian and bicycle lane infrastructure and alternative transportation connectivity, such as bus stop and dedicated bus pullout areas.*

Policy 2.A.9 *Promote flexibility in the application of parking standards to support mixed-use and transit oriented development.*

Policy 2.A.13 *Support the development of high density housing, commercial and offices*

	along high priority transit routes.
Goal 2.B	*Encourage the use of alternative means of transportation by providing safe bicycle and pedestrian facilities within urban growth boundaries and between communities thereby reducing road congestion which improves circulation, health and air quality within the County.*
Policy 2.B.1	*Actively investigate and seek alternative funding sources for bicycle and pedestrian facilities.*
Policy 2.B.2	*Construct bicycle and pedestrian facilities as soon as possible when funds become available.*
Policy 2.B.3	*Give special attention to the needs of pedestrians, bicyclists and individuals with disabilities in the project design review process.*
. *Policy 2.B.4*	*Maintain and expand, where possible and appropriate, the system of non-motorized connections that link neighborhoods to larger roadways, activity centers and nodes, businesses, community services, parks and recreational facilities, and transit stops and stations.*
Policy 2.B.5	*Require safe and adequate crossing facilities that minimize pedestrian exposure to vehicular traffic, such as curb extensions or refuge islands, wherever feasible.*
Policy 2.B.6	*Encourage Complete Streets design on existing and new roadways.*
Policy 2.C.8	*Encourage a continuous and interconnected pedestrian friendly system of paths that lead to transit stops, by encouraging all new residential and commercial development to include a pedestrian circulation system that is connected to existing (and where possible, planned) transit stops.*
Policy 2.C.9	*Encourage building site designs that cater to transit riders, pedestrians and cyclists, as well as those arriving by car. Examples of transit, pedestrian and bicycle friendly building site design features include, but are not limited to, segregated entrances, pavement markings and warning and directional signage.*
Policy 2.C.10	*Encourage a mixture of high density land uses in proximity to high frequency transit stops.*
Policy 2.C.13	*Encourage the Tuolumne County Transit Agency to market the transit trolley service to tourists to reduce daily internal County trips.*
Policy 2.C.14	*Encourage the Tuolumne County Transportation Council to enhance public transportation trips by improving performance, reliability, safety, security and bus stop facilities.*
Policy 2.C.15	*Encourage integration of different alternate transportation modes to facilitate*

	multi-modal trips. Examples of methods to integrate transportation modes include, but are not limited to, provision of bicycle parking at transit and park and ride facilities and buses that provide bicycle storage.
Policy 2.C.16	*Support a major transit route transfer facility at the County Law and Justice Center.*
Policy 2.C.17	*Support an inter-county bus transfer stop in Columbia near State Route 49.*
Policy 2.C.18	*Support development of electric charging stations for passenger vehicles, in particular near transit stop locations and high use parking areas.*
Policy 2.C.19	*Support the use of public transit during emergency evacuations by coordinating efforts through the Emergency Operations Plan.*

In addition, the *Jamestown, Columbia, East Sonora, Mountain Springs, and Tuolumne Community Plans* each contain goals and policies related to public and alternative transit.

Jamestown Community Plan:

Policy 14.C.2	*Require new urban residential development to provide amenities such as pedestrian walkways, bicycle paths, street lights, landscaping, and recreational facilities.*
Policy 14.D.1	*Encourage neighborhood commercial development within the Jamestown Community Plan boundaries to provide necessary services within walking, bicycling, or short driving distances and to reduce congestion on State Highway 49/108 and County Roads.*
Policy 14.E.4	*Support the continued provision of the County's bus transit system.*
Policy 14.E.10	*Encourage the development of bicycle and pedestrian transportation systems.*

Columbia Community Plan:

Goal 15.D	*Minimize the potential conflict between pedestrian, bicycle, and vehicular transportation routes by creating a safe, efficient, and economically feasible circulation system for the Columbia community.*
Policy 15.D.2	*Provide mechanisms for new development to share in the cost of transportation facilities, both motorized and non-motorized, which will facilitate the future growth needs of the Columbia community.*
Policy 15.D.3	*Encourage the development of bicycle and pedestrian circulation systems.*

East Sonora Community Plan:

Goal 16.E	*Promote the development of community oriented recreational opportunities and facilitate pedestrian accessibility throughout East Sonora.*

Policy 16.E.1	*Consider the incorporation of landscaped berms and medians to separate bicycle and pedestrian facilities from local collector roadways.*
Policy 16.E.3	*Support the continued provision of the County's transit system.*

Mountain Springs Community Plan:

Goal 3.C	*Meet the transit needs of Community Residents.*
Policy 3.C.1	*The Community Plan will facilitate safe, effective, and efficient transportation service to meet the reasonable community needs of transit dependent residents.*

Tuolumne Community Plan:

Policy 17.B.7	*Encourage pedestrian-oriented design.*
Policy 17.E.8	*Promote a pedestrian-friendly town core.*
Policy 17.E.9	*Encourage the use and development of safe alternative modes of transportation that reduce dependence on traditional vehicles and traditional roadways.*
Policy 17.E.11	*Adopt and facilitate construction of routes for alternative modes of transportation throughout the community that link together commercial, residential, school, recreational, public, and similar high-use land uses.*
Policy 17.E.12	*Continue to use the Tuolumne Bikeways and Trails Plan to guide construction of new biking, walking and equestrian trails.*
Policy 17.E.13	*If ridership warrants, support the Tuolumne County Transportation Council to increase public transit opportunities between areas with high volume demand within the Tuolumne Planning Area (e.g., downtown commercial center, Black Oak Casino) and Sonora.*
Policy 17.E.14	*Support the Tuolumne County Transportation Council to pursue transit stop design, locations, and scheduling that encourage safe, clean, and punctual transportation services.*
Policy 17.E.15	*Encourage Transit Oriented Development (TOD) near existing and proposed transit routes and bus stops.*
Policy 17.E.16	*Support the Tuolumne County Transportation Council to identify private public partnerships to share costs, facilities, and eliminate duplicate efforts resulting in a more efficient public transportation system.*

The proposed General Plan Update and the five community plans would promote mixed-use and higher density residential development and infill to take advantage of existing public

infrastructure and services. Compact neighborhoods would reduce auto dependency and the need for new roads, and transportation options would be increased. The Distinctive Communities Alternative Growth Scenario plans for each community in Tuolumne County to contain a well-defined, cohesive, and compact community built around an appropriately-scaled urban core and community gathering places. Infill and mixed-use aspects of the General Plan Update support alternative transportation due to residences, employment centers, and services being closer together.

Implementation of the Circulation Element improvements and policies included in the General Plan Update is expected to improve the availability of sidewalks, bike paths, and transit over time. By making these transportation alternatives more attractive, General Plan implementation is expected to foster a gradual increase of alternative transportation use. While the County's population would increase throughout the lifespan of the General Plan, the General Plan Update would improve alternative transit options within Tuolumne County, including efficiency and capacity of the transit system. Due to improvements to public transit included in the General Plan Update, impacts related to increasing use of public transit facilities would be less than significant.

Mitigation Measures. None required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact TC-5 The General Plan Update would not accommodate design features that would hinder emergency access. Development facilitated by the General Plan Update would be required to provide adequate emergency access. Impacts to emergency access would be Class III, *less than significant*.

The proposed General Plan Update would accommodate new development throughout the County. Development facilitated by the General Plan Update would be subject to applicable County standards and fire department standards, which require emergency access provisions. Additionally, any development would be subject to the Tuolumne County Ordinance Code (TCOC) Chapter 15.20, Fire Safety Standards, and Section 11.12.040, *Basic Road Design and Construction Standards*. Compliance with existing requirements would ensure that adequate emergency access would be provided for by all new development facilitated by the General Plan. Policies in the General Plan that aim to improve emergency access include:

Policy 6.I.1	*Improve the County circulation system as necessary to minimize delay of emergency vehicle response and evacuation due to traffic congestion.*
Goal 6.K	*Establish and maintain a codified fire protection risk management strategy which requires new development within Tuolumne County to incorporate or supply fire protection infrastructure and improvements necessary so that such development does not exceed the capabilities of the County's fire protection services.*
Policy 6.K.6	*Require that new development be provided with access roads which allow for safe and efficient response by emergency apparatus and the safe evacuation of*

residents in the event of structural or wildland fire.

Policy 6.K.8 *Require that street and structural identification are provided to assist in emergency response.*

Impacts related to deficiencies in emergency access as a result of development under the draft General Plan Update would be less than significant.

Mitigation Measures. None required.

Significance After Mitigation. Impacts would be less than significant without mitigation.

Impact TC-6 Total vehicle miles traveled (VMT) on highways and roadways in 2040 would increase when compared to existing (2015) baseline conditions. However, implementation of the General Plan Update would reduce overall VMT in 2040 when compared to 2040 baseline conditions without the General Plan Update. Impacts related to total highway and roadway vehicle miles traveled would be Class III, *less than significant.*

The Wood Rodgers Traffic Study forecasted traffic in 2040 under two scenarios; the No Project scenario and the proposed General Plan Update.

Table 4.15-7 shows VMT in the year 2015 and in the year 2040 under both the proposed General Plan Update and under the No Project scenario for roadways throughout Tuolumne County. As shown, the 2040 annual VMT would increase above 2015 conditions for both scenarios. This increase is largely a result of population growth anticipated throughout the region by 2040. As such, the increase in VMT is not necessarily attributed to the General Plan Update when compared to existing conditions. To evaluate the incremental impact of the proposed General Plan Update, future conditions in the year 2040 were evaluated with and without the General Plan Update. As shown in Table 4.15-7, the General Plan Update would result in less VMT when compared to the 'No Project' scenario conditions. Therefore, the General Plan Update would result in circulation improvements when compared to conditions without the General Plan Update. Impacts would less than significant.

Table 4.15-7
Total Annual VMT

Scenario	VMT (Daily)
Baseline - 2015 Existing Conditions	1,829,654
Year 2040 - No Project Scenario	2,188,733
Year 2040 - Proposed General Plan Update	2,170,502

Source: Tuolumne County GP and RTP Update Traffic Study, Wood Rogers (September 2015). See Appendix C for full Traffic Study.

Mitigation Measures. None required.

Significance After Mitigation. Impacts would be less than significant without mitigation.