

3.15 RECREATION

This section describes the parks and recreational facilities within Tuolumne County and potential impacts thereof associated with projected development under the General Plan Update. Comments received on the Draft EIR raised issues related to recreation, primarily issues associated with the level of parkland provision and County standards. These concerns are addressed below, as appropriate.

3.15.1 Environmental Setting

EXISTING PARKS AND RECREATIONAL FACILITIES

Parks and recreational facilities enhance Tuolumne County's aesthetic qualities, the health of the County's environment, and residents' quality of life. Community parks serve as both recreational and open space resources, which can provide opportunities for active and passive recreation, and can also include natural preserve areas. The County's Public land use designation includes the County's own property, Stanislaus National Forest, Yosemite National Park, Columbia State Historic Park, Railtown 1897 State Historic Park, and lands under jurisdiction of the U.S. Bureau of Land Management and U.S. Bureau of Reclamation.

Table 3.15-1 describes some of the existing park and recreational facilities located within unincorporated areas of the County.

Table 3.15-1 Park and Recreational Facilities in Unincorporated Tuolumne County

Name	Managing Entity	Location
Yosemite National Park	National Park Service	High Country
Stanislaus National Forest	U.S. Forest Service	High Country
New Melones Lake	U.S. Bureau of Reclamation	Columbia
Columbia State Park	California Department of Parks and Recreation	Columbia
Railtown 1897 State Historic Park	California Department of Parks and Recreation	Jamestown
Big Trees State Park	California Department of Parks and Recreation	Northern Tuolumne County
Lake Don Pedro	Don Pedro Recreation Agency	Lake Don Pedro
Lake Tulloch	South San Joaquin Irrigation District	Jamestown
Pioneer Park	Tuolumne County Recreation Department	Columbia
Rocca Park	Tuolumne County Recreation Department	Jamestown
Patterson Field	Tuolumne County Recreation Department	Jamestown
Jamestown Youth Center	Tuolumne County Recreation Department	Jamestown
Groveland Youth Center	Tuolumne County Recreation Department	Groveland
Twain Harte Pool	Tuolumne County Recreation Department	Twain Harte
Columbia Pool	Tuolumne County Recreation Department	Columbia
Tuolumne Pool	Tuolumne County Recreation Department	Tuolumne
Standard Park Sports Complex	Tuolumne County Recreation Department	East Sonora
Westside Memorial Park	Tuolumne County Recreation Department	Tuolumne
Tuolumne Youth Center	Tuolumne County Recreation Department	Tuolumne
Depot Park and Trails	Tuolumne Park and Recreation District	Tuolumne
Bay Street Tot Lot	Tuolumne Park and Recreation District	Tuolumne
Reid Park	Tuolumne Park and Recreation District	Tuolumne

Table 3.15-1 Park and Recreational Facilities in Unincorporated Tuolumne County

Name	Managing Entity	Location
Twain Harte Park	Twain Harte Community Services District	Twain Harte
Eproson Park	Twain Harte Community Services District	Twain Harte
Twain Harte Tennis Courts	Twain Harte Community Services District	Twain Harte
Mary Laveroni Park	Groveland Community Services District	Groveland
Columbia College Tennis Courts	Columbia College	Columbia
Twain Harte Golf Club	Private	Twain Harte
Mountain Springs Golf Club	Private	Mountain Springs
Phoenix Lake Golf Course	Private	Phoenix Lake
Leland High Sierra Snow Play	Private	Leland Meadows
Dodge Ridge Wintersports Area	Private	Pinecrest

Source: Data compiled by Ascent and Tuolumne County in 2018

Note: In addition to the park and recreation facilities listed above, there are parks and recreation areas owned and operated by homeowners associations. Some of these facilities are open to the public (e.g., Brentwood Homeowners Association Park, Willow Springs Park, Crystal Springs Park and Lake, and Twain Hart Lake).

The 2002 Tuolumne County Recreation Master Plan describes the parks and recreation facilities operated by the County. Table 3.15-2 below shows each of the park facilities and identifies the primary amenities and size of each facility. As shown in Table 3.15-2, Tuolumne County operates and maintains over 341 acres of parks.

Table 3.15-2 County Parks Identified in 2002 Recreation Master Plan

County Parks ¹	Amenities	Acres
Courthouse Park	Benches, picnic areas	0.25
Rocca Park	Bandstand, children's playground, restrooms	0.5
Library, Skateboard Park, and Heaven for Children Playground	Skateboard park, picnic/barbeque facilities, children's playground	5
Standard Park	Softball/soccer fields, children's play area, concession stand, restrooms	11
Patterson Field	Baseball field, picnic/barbeque facilities, concessions stand, restroom	3
Twain Harte Swimming Pool	Swimming pool, restroom	0.5
Pioneer Park	Baseball field, concession stand, bleachers, restroom, children's playground, picnic facilities	20
Westside Memorial Hall Park	Bandstand, picnic tables, swimming pool, sports field, and playground	5
Lake Tulloch Marina (long-term lease on land owned California Department of Fish and Wildlife)	130 campsites, restaurant/store, marina, boat launch, day-use facilities	296
Sullivan Creek	Natural area with swimming hole	9
Greenley Oaks	None-undeveloped	1
Quail Hollow	None-undeveloped	1
Total	-	352.25

Note:

¹ Jamestown Youth Center and the Golden Pond/Jamestown Mine Site are not included on this list. Jamestown Youth Center would not generally be considered a "park" or public recreation facility. The Golden Pond/Jamestown Mine Site is not currently developed as a park or recreation facility although it does provide potential future opportunity as a major park in the County.

Source: Compiled by Ascent Environmental from Tuolumne County 2002

Based on the 2015 population of unincorporated Tuolumne County (49,458 individuals), and the acreage of parkland provided in the unincorporated area by the County (approximately 341 acres), the County currently provides nearly 7 acres of parks per 1,000 residents.

The 1996 General Plan designates 4,827 acres of land for park and recreation use. In addition to County-owned and managed resources, multiple agencies have jurisdiction over parks and other recreational facilities within Tuolumne County: the U.S. Forest Service, U.S. Bureau of Reclamation, National Park Service, U.S. Bureau of Land Management, California Department of Parks and Recreation, and California Department of Fish and Wildlife. Schools, when not in session, also provide recreational facilities used by County residents.

Stanislaus National Forest, Yosemite National Park, and other surrounding areas in the Sierra Nevada provide incredible natural vistas and settings for hiking, water skiing, horseback riding, rafting, camping, snowmobiling, boating, snow skiing, fishing, and other outdoor activities. In addition, human-made recreational attractions include restored historic hotels, golf courses, numerous gourmet restaurants, wineries, train rides, casinos, five museums, two state historic parks, live theater, and bed-and-breakfasts. These parks and recreational resources make the County a true year-round vacation and recreation destination.

3.15.2 Regulatory Setting

FEDERAL

There are no federal regulations that pertain to recreation that are applicable to the General Plan Update.

STATE

Quimby Act

The Quimby Act (Government Code Section 66477), enacted in 1975, is intended to mitigate the impacts of development on parks and recreational facilities. This Act authorizes cities and counties to adopt ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Required in-lieu fees for park and recreational improvements, known as Quimby fees, are attached as a condition of approval of a tract map or parcel map. The Quimby Act authorizes jurisdictions to require that such fees fund 3 acres of parkland per 1,000 persons, unless the amount of existing neighborhood and community park area exceeds that limit, in which case the legislative body may adopt the calculated amount as a higher standard not to exceed 5 acres per 1,000 persons.

LOCAL

Tuolumne County General Plan

The 1996 General Plan provides a framework for addressing issues related to recreation in the County. As the proposed project would update the 1996 General Plan, this document will be discussed in the context of the update within the impact analysis. The Parks and Recreation Element contains goals, policies, and implementation programs related to County parks. Specific General Plan Update policies related to recreation are identified below under Section 3.15.3, "Impact Analysis."

3.15.3 Impact Analysis

METHODS OF ANALYSIS

Potential impacts in the Tuolumne County resulting from projected development under General Plan Update were evaluated based on a review of planning documents pertaining to the County, including the County's current General Plan and zoning ordinance. The focus of this analysis is on impacts to recreation facilities that would result from the General Plan Update.

THRESHOLDS OF SIGNIFICANCE

Based on the Quimby Act, impacts are significant if implementation of the General Plan Update results in less than 5 acres of County recreational facilities per 1,000 residents.

Additionally, in accordance with Appendix G of the State CEQA Guidelines, an impact is significant if physical changes that could result from projected development under the General Plan Update would result in one or more of the following conditions:

- ▲ the project would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, or
- ▲ the project includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

GENERAL PLAN UPDATE POLICIES

The following policies and implementation programs from the General Plan Update are applicable to the evaluation of effects related to recreation:

Parks and Recreation Element

- ▲ **Policy 11.A.1:** Acquire and develop recreation facilities to fulfill the County's projected unmet need based on a goal of 5 acres of recreational facilities per 1,000 residents.
 - **Implementation Program 11.A.a:** Maintain and update the Recreation Master Plan which describes the general location for regional recreation facilities, provides conceptual designs for future parks and recreational facilities, identifies desired recreational trails, estimates costs of construction, identifies potential funding sources, identifies potential management agencies and provides the rationale establishing the need for recreational facilities in Tuolumne County.
 - **Implementation Program 11.A.b:** Acquire land and construct new parks according to the priorities established, the needs identified and within the general locations shown in the Recreation Master Plan.
 - **Implementation Program 11.A.c:** Update the database of existing recreational facilities on the County's Geographic Information System (GIS) whenever new facilities are constructed. The database shall include, at a minimum, the location, acreage, and description for all public and private recreational facilities.
 - **Implementation Program 11.A.d:** Distribute a recreational needs assessment survey inviting comment on the adequacy and level of use of existing facilities and need for new facilities to the local, state and federal agencies, local media, and interested stakeholders on a periodic basis.
 - **Implementation Program 11.A.e:** Maintain the amount of acreage devoted to the County of Tuolumne's regional recreational facilities by establishing a program for replacing any regional

parkland that may be eliminated in the future. Such a program should establish guidelines for selecting sites for relocation of the facilities, setting time frames for replacement and identify possible funding mechanisms for such relocation and replacement.

- ▶ **Implementation Program 11.A.f:** Address recreational needs of new identified communities and community plans through a recreation plan to be approved in conjunction with approvals for new communities and community plans which includes the following:
 - Recommendations for the amount of acreage needed to serve the population of the new community or within the community plan's boundaries using a minimum standard of 5 acres/1,000 population.
 - Recommendations for the locations and alternative locations for park sites within the boundaries based on projected acreage needs.
 - Appropriate zoning to facilitate future dedication/development of identified park sites.
 - Recommendations for maintaining proposed recreation facilities, including maintenance districts.
 - Identification of potential routes for trails to link new towns or communities into the County-wide trail system.
- ▲ **Policy 11.B.1:** Ensure professional design of new facilities, acquisition of adequate levels of insurance, and adoption of long-term maintenance plans for new facilities.
 - ▶ **Implementation Program 11.B.a:** Avoid impinging on private property rights whenever possible by locating new recreational facilities on publicly-owned lands whenever feasible and encourage cooperation from private property owners by providing compensation to and indemnification from liability for willing sellers when the acquisition of private property is necessary.
 - ▶ **Implementation Program 11.B.b:** Prepare a sample recreation easement detailing the rights and restrictions of the public to use trails over private property, detailing methods for screening private property from public trail use and addressing indemnification of private property owners.
 - ▶ **Implementation Program 11.B.c:** Encourage the private development and maintenance of trails of all kinds, including equestrian facilities, within private subdivisions. Recognize that the provision of equestrian trails should be the choice of the developer of new residential subdivisions and that choice should include responsibility for maintenance of those trails by future property owners; as such, discontinue the County's acceptance of equestrian trail easements within private subdivisions and discontinue requiring such easements as a condition of project approval. The County will continue to consider accepting easements for future equestrian trails outside of new residential subdivisions to serve public needs.
 - ▶ **Implementation Program 11.B.d:** Evaluate alternatives to maintaining liability coverage for public parks and indemnification of private property owners.
- ▲ **Policy 11.B.2:** Target lands for proposed facilities within the Recreation Master Plan that require minimal grading with topography consistent, where feasible, with the Americans with Disabilities Act (ADA). In addition, emphasize sites which feature mature vegetation and would require minimal additional landscaping. Proposed facility locations should be adjacent to existing or anticipated population centers for convenient access by residents of those areas and to provide for efficient use of existing infrastructure.
- ▲ **Policy 11.B.3:** Create convenient and safe opportunities for physical activity for residents of all ages and income levels.

- ▲ **Policy 11.B.4:** Give preference to locating new recreational facilities in areas where high levels of community support and interest are expressed.
 - **Implementation Program 11.B.e:** Solicit input from the people to be served by a new recreational facility to gauge interest prior to allocating funding to acquire and/or construct new facilities. Identify local organizations interested in adopting parks for maintenance and identify volunteers to assist permanent staff with construction and maintenance of facilities.
- ▲ **Policy 11.B.5:** Investigate the feasibility of forming a regional recreation district to organize and conduct recreation programs; establish systems of recreation and recreation centers; and to acquire, construct, maintain and operate recreation centers within the district. The intent of the formation of such a district would be to provide for public recreational facilities of a regional nature that are located outside of the identified communities. Any proposed regional recreation district would not include the areas lying within the jurisdictional boundaries of existing recreation and park districts or community services districts which provide public recreational facilities unless those districts choose to participate in the regional recreation district.
- ▲ **Policy 11.B.6:** Construct trails for bicycle, pedestrian and, where feasible, equestrian use linking the County's major population centers with other local, state and federal recreational facilities, significant open space areas, libraries, schools, neighborhoods, public facilities and other destination points. Acquisition and construction shall be in accordance with the priorities established, the needs identified and within the general locations shown in the Tuolumne County Recreation Master Plan in coordination with the Tuolumne County Regional Transportation Plan Non-motorized Element (RTP) and General Plan Transportation Element.
 - **Implementation Program 11.B.f:** Promote the development of non-motorized trails along streams, rivers and ditches to encourage walking and bicycling.
 - **Implementation Program 11.B.g:** Encourage the dedication and installation of multi-use non-motorized trails in new development proposals. Allow subdivisions to construct portion(s) of adopted bicycle/pedestrian routes to fulfill the recreation requirements. The construction of any such routes shall count toward the required on-site recreational facilities pursuant to Government Code Section 66477.
- ▲ **Policy 11.B.7:** Permit recreational uses in flood zones if it can be demonstrated that the recreational use will not cause additional flooding, increase the potential for flood damage, or increase health and safety risks.
 - **Implementation Program 11.B.h:** To provide recreational use in water resource areas, continue to conditionally permit, in the O (Open Space) and O-1 (Open Space -1) zoning districts, recreational uses where such uses do not adversely impact water resources, such as beaches, picnic areas, non-motorized pedestrian and equestrian trails and other recreational uses.
- ▲ **Policy 11.B.8:** Provide reasonable public access to public waterways, lakes and reservoirs in compliance with State statutes while protecting private property rights and maintaining the biological, scenic and historical integrity of these features and lands adjacent to these features.
 - **Implementation Program 11.B.i:** Develop a program to identify public waterways, lakes and reservoirs that do not already provide reasonable public access, but which are required to provide such access pursuant to State statutes. The program should include provisions for identifying which bodies of water require public access, identification of reasonable access points to these water bodies and procedures for providing such access.
- ▲ **Policy 11.C.1:** Promote the sharing of recreational facilities between the County and the public schools by coordinating with the schools in master planning new recreational facilities and exploring opportunities to share the costs of acquisition, construction, maintenance and administration of such

- **Implementation Program 11.D.a:** Design bicycle and pedestrian transportation routes that can be integrated into the recreational routes designated in the Tuolumne County Recreation Master Plan.
- **Implementation Program 11.D.b:** Encourage and support a multimodal use of the Sierra Railroad right-of-way between Standard and Oakdale for development of a pedestrian, equestrian and bicycle trail. Balance pedestrian, bicycle and road safety needs with railroad infrastructure.
- **Implementation Program 11.D.c:** Maintain, periodically update and implement the Tuolumne County Bikeways and Trails Plan, which addresses a complete bicycle and pedestrian network to serve the needs of the County. This active transportation network should include roadways parallel to regional facilities so that the regional roadway system can function effectively and efficiently. Seek funding for this network from a combination of sources, such as new development and Federal and State funding programs.
- ▲ **Policy 11.E.1:** Maintain and update, as necessary, the Tuolumne County Ordinance Code sections pertaining to land dedications and/or payment of in-lieu fees for new development's contribution to providing recreational facilities consistent with Government Code Section 66477.
 - **Implementation Program 11.E.a:** Establish standards in the Tuolumne County Ordinance Code for the provision of open areas and recreational facilities for new residential development consisting of five or more dwelling units. Review and update, as needed, existing requirements for open areas and recreation facilities for multi-family housing development in the County Ordinance Code.
 - **Implementation Program 11.E.b:** Require new residential development of five or more units to participate in the provision of recreational facilities for their residents as follows:
 - a. For multi-family housing developments, such as apartments, or mobile home parks, recreational facilities shall be provided on site.
 - b. For residential subdivisions, the subdivider shall have the option to provide recreational facilities on site, pay an in-lieu recreation fee or dedicate land for public recreational facilities in accordance with Government Code 66477. Any such fees collected may be used for the acquisition, construction and maintenance of recreational facilities.
- ▲ **Policy 11.F.1:** Distribute the cost of providing and maintaining new recreational facilities to visitors and County residents.
 - **Implementation Program 11.F.a:** Update existing ordinances establishing user fees at public recreation facilities. Fees generated shall be used for acquisition, construction and maintenance of recreational facilities.
 - **Implementation Program 11.F.b:** Investigate the feasibility of forming assessment districts for the purpose of financing the installation, construction and maintenance of landscaping, park and recreational improvements and for the purchase of land for improvements related to parks, lighting and landscaping.
 - **Implementation Program 11.F.c:** Consider selling surplus public lands and vacant public lands that are too small to be developed into meaningful recreational facilities or are not in propitious locations, to finance larger, more functional, recreational facilities serving the same population.
 - **Implementation Program 11.F.d:** Continue to explore funding sources, such as grants and bond acts for acquisition, development and/or maintenance of recreational facilities.
 - **Implementation Program 11.F.e:** Encourage community groups to "Adopt-A-Park" for maintenance of parks and recreational facilities.

PROJECT IMPACTS

This section presents a programmatic-level analysis of potential impacts associated with recreation from projected development under the General Plan Update. Evaluation of environmental impacts associated with the General Plan Update considers the development that would be facilitated by the General Plan Update, in accordance with goals, policies, and implementation programs, to accommodate projected growth in the County. It should be noted that the County's population is projected to grow by 0.6 percent annually over the planning horizon (2040). As discussed in detail in Chapter 2, "Project Description," and the introduction to Chapter 3, this is a relatively low amount of growth.

Impact 3.15-1: Require the Construction or Expansion of Recreational Facilities

The General Plan Update includes a proposed policy that would change the County's goal of 30 acres of recreational facilities per 1,000 residents to 5 acres of parkland per 1,000 residents. This policy change is consistent with the requirements of the Quimby Act and is also in line with standards of other Sierra/foothill counties. Furthermore, the availability of recreation opportunities provided by state and federal public lands further minimizes demand for County parks and reduces the potential for physical deterioration of existing parks as a result of overuse. Impacts to parks as a result of the policy change would be **less than significant**.

As explained below, the General Plan Update includes a change to the County's parkland provision goal. But this change will not have significant impacts on existing recreational facilities or the physical environment.

Policy 8.A.1 in the County's 1996 General Plan Recreation Element states an intent to acquire and develop recreation facilities based on a goal of 30 acres of recreational facilities per 1,000 residents. State or federal lands do not count toward meeting this policy provision as the Quimby Act limits inclusion to neighborhood and community parks of the County. As discussed above, the County currently provides almost 7 acres of parkland per 1,000 residents. The County currently falls substantially short of meeting the 1996 policy's goal for parkland provision.

As part of the General Plan Update process, the County has re-considered the feasibility and necessity of the 30-acre-per-1,000-resident policy. The County notes that the Quimby Act (Government Code Section 66477[a][2]) sets the minimum standard for requiring parkland dedication and/or in-lieu compensation from developers at 3 acres per 1,000 residents, but also sets a maximum standard at 5 acres per 1,000 residents. Therefore, the County is not able to require land dedication or fees from developers above the maximum set by the Quimby Act, and the County would have been required to find other funding sources to develop the remaining 25 acres of parkland per 1,000 residents to meet the 1996 parkland provision goal. The County has not been able to find these funding sources, and the current parkland provision policy is considered infeasible.

Moreover, County residents have access to substantial public recreation acreage through the federal and state resources located within the County, such as New Melones Lake, Yosemite National Park, Columbia State Park, and other resources identified in Table 3.15-1. In short, the County has an abundance of County, state, and federal parkland, and the County has concluded that the 30-acre-per-1,000-resident policy is unnecessary to the County's planning objectives.

In developing an updated parkland standard, the County reviewed parkland provision standards identified by similar counties. Table 3.15-3 includes the parkland provision standards of six other Sierra/foothills counties, including Placer, Nevada, El Dorado, Amador, Calaveras, and Madera. The parkland standards generally range from 1.5 acres to 5 acres per 1,000 residents. (One exception is that Placer County includes a standard of 5 acres of active parkland and 5 acres of passive parkland per 1,000 residents for combined active and passive parkland of 10 acres of parkland per 1,000 residents.)

Table 3.15-3 Parkland Provision Standards of Other Sierra/Foothills Counties

County	Parkland Standard (acres per population)	Document Containing Standard
Placer County	<ul style="list-style-type: none"> ▲ 10 acres of parkland per 1,000 ▸ 5 acres active parkland per 1,000 ▸ 5 acres passive parkland per 1,000 	Policy 5.8.1, Placer County General Plan (2013)
Nevada County	<ul style="list-style-type: none"> ▲ 3.0 acres parkland for increase of 1,000 	Policy 5.5, Nevada County General Plan Recreation Element (1995)
El Dorado County	<ul style="list-style-type: none"> ▲ 1.5 acres regional park per 1,000 ▲ 1.5 acres community park per 1,000 ▲ 2 acres neighborhood park per 1,000 	Policy 9.1.1.1, El Dorado County General Plan Parks and Recreation Element (2004)
Amador County	<ul style="list-style-type: none"> ▲ 5 acres of parkland per 1,000 ▲ 3 acres of developed active parkland per 1,000 	Amador County Draft Park and Recreation Master Plan (2016)
Calaveras County	<ul style="list-style-type: none"> ▲ 2.5 new local parkland per 1,000 	Implementation Program V-8B-2, Calaveras County General Plan Open Space Element (1996)
Madera County	<ul style="list-style-type: none"> ▲ 3 acres of improved parkland per 1,000 	Policy 4.A.4, Madera County General Plan Recreational and Cultural Resources Element (1995)

General Plan Update Policy 11.A.1, which would update Policy 8.A.1 from the 1996 General Plan, states that the County will acquire and develop recreation facilities to fulfill the County's projected unmet need based on a goal of 5 acres of recreational facilities per 1,000 residents. This proposed new standard is consistent with the provisions of the Quimby Act and consistent with the standards of other Sierra/foothills counties.

Updating the policy to reflect an achievable parkland provision goal would not result in physical impacts to existing recreational facilities. The County's proposed parkland standard would continue to maximize the parkland dedication and/or in-lieu fees collected from developers. In addition, the expansive amount of federal and state public lands available for recreation will continue to provide residents of Tuolumne County numerous alternatives to County parks, which reduces demand for County parks and also minimizes the potential for physical deterioration of County parks resulting from overuse. Impacts related to provision of parkland and associated physical impacts to existing parks resulting from overuse would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.15-2: Physical Impacts to Existing Parks Resulting from Inadequate Park Provision

Projected development under the General Plan Update would increase the County's population; however, parks would be provided that would meet the County's proposed standard of 5 acres of recreation facilities per 1,000 residents. (See Impact 3.15-1 above that evaluates potential impacts associated with the proposed change in the County's park provision standard.) Policies and implementation programs in the General Plan Update would contribute to the development of additional parkland. Furthermore, state and federal public lands located within Tuolumne County provide County residents substantial alternatives to County recreation facilities, which reduces demand for County parks as well as the potential for their overuse. Impacts from the overuse and deterioration of existing park and recreational facilities would be **less than significant**.

Based on the unincorporated County's population of 49,458 (in year 2015), and the standard of 5 acres of recreational facilities per 1,000 residents as proposed in Policy 11.A.1 of the Parks and Recreation Element, the County needs to provide a minimum of 247 acres of recreational facilities to meet existing demand from residents. As shown in Table 3.15-2, the County currently provides approximately 352 acres of recreation facilities to meet the existing demand, which exceeds the proposed County standards. As discussed in Section 3.13, "Population and Housing," the Tuolumne County Transportation Council projects that the County's total population will increase to 63,243 by the year 2040. The County would be required to provide a total of 316 acres of parks by 2040 to meet the proposed standard using this population estimate.

However, because a portion of this population growth would occur within the City of Sonora, this projection conservatively calculates parkland demand for the unincorporated area of the County. The County already provides 352 acres of recreation amenities, which exceeds the amount of parkland required if the projected 2040 population is reached.

In addition, the General Plan Update designates a total of 5,287 acres as Parks and Recreation (not included on federal or state land). This could accommodate an increase of 4,935 acres over existing conditions. Therefore, implementation of the General Plan Update would conceivably result in the development of parks and recreation facilities on the 5,287 acres, which would far exceed the proposed parkland provision standard. But, as noted elsewhere in the EIR, full buildout of every parcel in the County is not foreseeable and there is no evidence to suggest that new parks and recreation facilities would be developed on all of the 4,935 acres.

Further, although it is not factored into the County's parkland provision standard, federal and state parkland, including Yosemite National Park, Stanislaus National Forest, Columbia State Park, and other parks and reservoirs (designated Public in the General Plan Update), serve as recreational amenities for residents of the unincorporated County. Exhibit 3.15-1 below shows the General Plan Update land use designations for Parks and Recreation, Open Space, and Public land.

The implementation of goals, policies, and implementation programs in the General Plan Update would further enhance provision of quality parks and recreation facilities in the County. As discussed above, Policy 11.A.1 requires 5 acres of recreational facilities per 1,000 residents. This policy is supported by implementation programs to update the Recreation Master Plan, acquire land and construct new parks, public outreach and recreation needs assessment, replacing any future parkland that is lost, and requiring recreation plans for new communities and community plans. Other policies relate to appropriate siting and general location of safe and convenient parks near population centers and in locations where high levels of community support and interest are expressed (Policies 11.B.1 through 11.B.4). Policy 11.B.5 addresses regional recreation needs by requiring investigation of a regional recreation district. Policies 11.B.6 and 11.D.4 address the need for trails by requiring construction of a trails network for bicycle, pedestrian, and where feasible, equestrian use and siting trails to provide linkage between other recreational destinations, population centers, and public facilities (libraries, schools, etc.). Policy 11.B.8 requires the County to provide reasonable public access to public waterways, lakes, and reservoirs. Policy 11.C.1 would potentially expand the amount of parkland available to the public by promoting the sharing of recreational facilities between the County and public schools. Policies 11.E.1 and 11.F.1 pertain to funding of recreation facilities by requiring the County to maintain and update the County Ordinance Code sections requiring land dedication and in-lieu fees for developments' contribution to provision of recreation facilities and by distributing the cost of providing and maintaining new recreational facilities to both visitors and County residents through establishing user fees, investigating the feasibility of assessment districts, and exploring other funding sources such as grants and bond acts.

Implementation of these policies and the supporting implementation programs would enhance the County's ability to provide and maintain high-quality recreation facilities sufficient to meet the needs of the County and consistent with the County's standards. This impact is **less than significant**.

Mitigation Measures

No mitigation is required.

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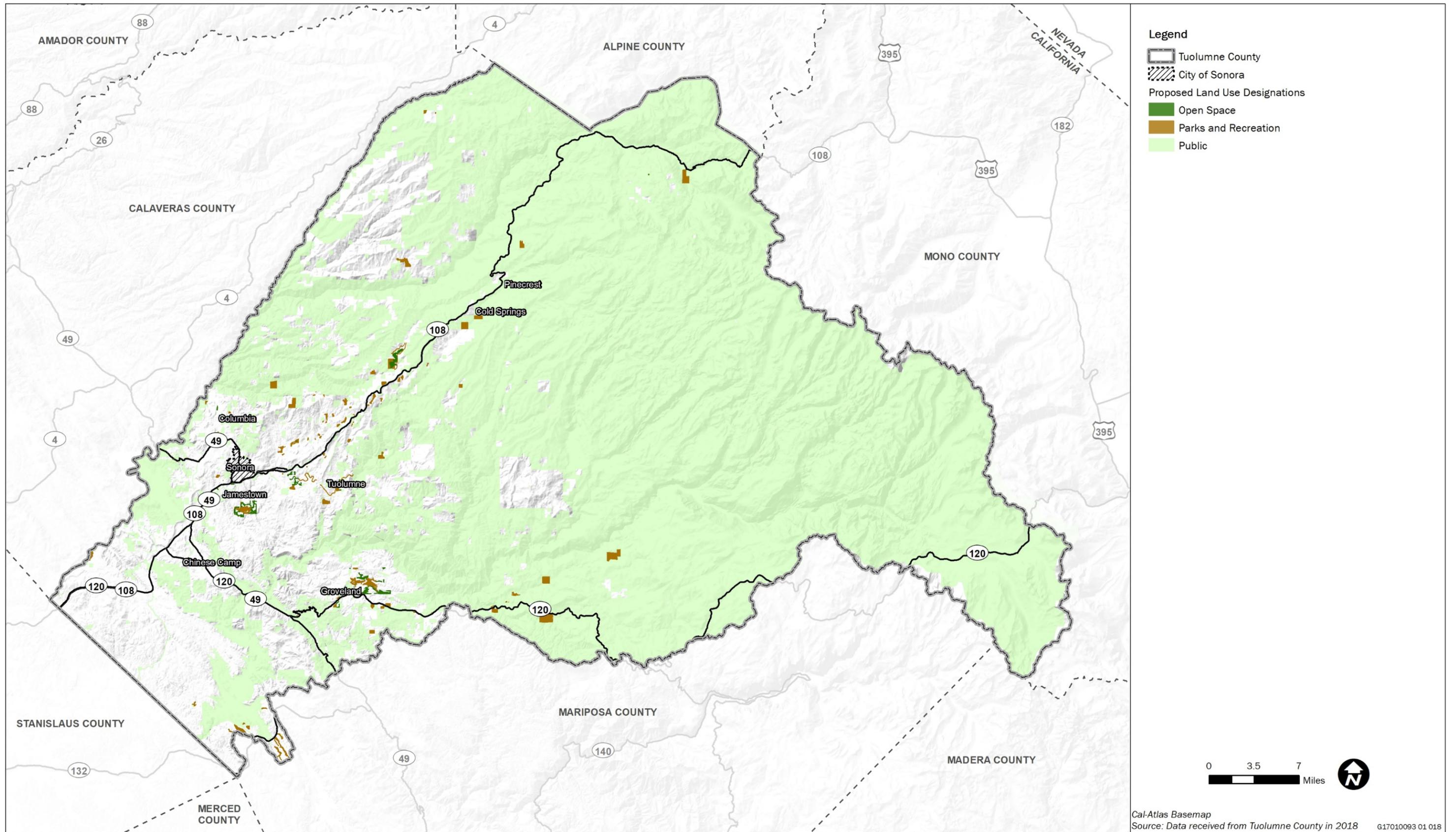


Exhibit 3.15-1

Proposed Parks and Recreation, Open Space, and Public Land Use Designations



3.16 TRANSPORTATION AND CIRCULATION

This section includes an analysis of the existing and future traffic operations for key roadways and intersections in Tuolumne County. The analysis herein is based on the General Plan and Regional Transportation Plan (RTP) Update EIR Traffic Study (Traffic Study) prepared for the Tuolumne County Transportation Council (TCTC) by Wood Rodgers in September of 2015, and the subsequent addendum to this report (Traffic Study Addendum) that was completed by Wood Rodgers in August of 2016. This section describes existing conditions and potential impacts to the transportation system for 2030 and 2040 associated with projected development under the General Plan Update. Additionally, this section identifies transportation and circulation improvements that would be necessary to mitigate the transportation impacts resulting from projected development under the General Plan Update through 2040.

Comments on the Draft EIR addressed traffic increases and transportation safety issues related to the potential future development of specific parcels, accounting for transportation funding changes that will affect the programmed improvement projects identified in the 2016 RTP, and the need to address the traffic impacts of agritourism.

3.16.1 Environmental Setting

EXISTING VEHICULAR CIRCULATION SYSTEM

Major Roadways. Circulation in/through Tuolumne County is primarily provided by State Routes (SRs) 49, 108, 120, and 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. Exhibit 2-1 in Section 2.1 of Chapter 2, "Project Description," shows Tuolumne County's state route system. Exhibit 3.16-1 identifies the street and highway routes, and intersections within Tuolumne County. The expected travel characteristics, including vehicle trips, the directionality of those vehicle trips, and primary travel routes associated with the General Plan Update would directly impact the circulation system of the City of Sonora. Therefore, roadway segments and intersections within the City of Sonora were included within the study area and analyzed within this EIR.

State routes play a major role in Tuolumne County's transportation system. Each of the major state routes within Tuolumne County are summarized below.

State Route 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

A state highway that runs northeast from the City of Modesto in the California Central Valley to U.S. 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. 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

An East-West state highway in Northern California that runs from San Joaquin County to U.S. 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

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 access to Columbia and surrounding areas in northwestern Tuolumne County, including a fly-in campground. Pine Mountain Lake Airport provides access 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. With 49 miles of track, the Sierra Railroad 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.

PUBLIC TRANSPORTATION

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 a SkiBUS and partners with Yosemite National Park to provide the Yosemite Area Regional Transportation System. The SkiBUS provides service from Sonora to Dodge Ridge Ski Resort throughout the ski season. The Yosemite Area Regional Transportation System operates from May to September and connects Sonora, Jamestown, Groveland, and Buck Meadows with Yosemite Valley.

BICYCLE AND PEDESTRIAN CIRCULATION

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 identified communities. There are two existing Class II bicycle facilities within the County: a 6-mile facility along Soulsbyville Road and a 3-mile facility along Mono Way. 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 cross-flows by pedestrians and motorists permitted. In California, the Manual on Uniform Traffic Control Devices sign #R3-17 normally designates class II facilities.

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, California Department of Transportation (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 4.A.b of the General Plan Update, the minimum LOS standard for Minor Collectors, Major Collectors, Arterials and Urban Streets (County facilities) is LOS D, unless an exception is made by the County. The minimum LOS standard for local 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 3.16-1 and the LOS threshold volumes for intersections are defined in Table 3.16-2.

Table 3.16-1 TCTC Generalized Roadway Average Daily Traffic (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
	Rural Minor Arterial (with climbing lane)	12	2,900	7,400	13,800	19,700	28,800
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
Rural Minor Arterial (with climbing lane)	112	2,700	6,890	12,840	18,330	26,790	

Table 3.16-1 TCTC Generalized Roadway Average Daily Traffic (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
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	5,700	11,300	17,000	24,100	28,400
	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

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 percent 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 percent 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.

Source: Wood Rogers 2016

Table 3.16-2 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

Table 3.16-2 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
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: Wood Rogers 2015

Existing Traffic Operations

Exhibit 2-1 in Section 2.1 of Chapter 2, "Project Description," and Exhibit 3.16-1 show key travel corridors in Tuolumne County and local state routes. (Note that not all roads identified in Exhibit 3.16-1 are discussed in this section. Please refer to the Traffic Study in Appendix D of this EIR for a full list of the roadways shown.) Traffic data and vehicle counts from these roads were used to find 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 2015).

As shown in Table 3.16-3, all but seven of the 152 studied roadway segments currently operate at the acceptable LOS D conditions or better, under existing conditions. The conditions for all 152 roadway segments (including the 143 segments that are currently operating at acceptable LOS conditions) is provided in Appendix D of this EIR.

Table 3.16-3 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: Wood Rogers 2015. See Appendix D of this EIR for the full Traffic Study.

As shown in Table 3.16-4, 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 D of this EIR.

Table 3.16-4 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	SSSC	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	5 th Ave & SR 49-SR 108	TWSC	D	232.2	F	429.6	F
11	SR 49-SR 108/SR 108 & SR 49 (Stockton Rd)	SSSC	D	36.9	E	69.6	F
13	Parrotts Ferry Rd & Sawmill Flat Rd	SSSC	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	SSSC	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	SSSC	D	52.9	F	23.7	C

Notes:

1. TWSC = Two-Way-Stop Control, AWSC = All-Way-Stop Control, SSSC = Side-Street-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: Wood Rogers 2015). See Appendix D of this EIR for the full Traffic Study.

3.16.2 Regulatory Setting

FEDERAL

There are no federal laws or regulations addressing transportation and circulation that are relevant to the General Plan Update.

STATE

California Department of Transportation Concept Reports

Caltrans is responsible for the planning, design, construction, operation, and maintenance of all state-owned roadways, including those in Tuolumne County. SR 49, 108, 120, and 132 are located in Tuolumne County, and are within Caltrans's jurisdiction.

Transportation Concept Reports (TCRs) have been completed by Caltrans for the state highway system serving Tuolumne County. TCRs are Caltrans long range planning documents that are completed for each state highway route, and that identify existing route conditions and future needs. Each TCR includes a route summary, segment summaries, existing and forecasted travel data, route maps, and a list of planned, programmed, and needed projects for each highway over the next 20 years. TCRs identify how a highway will be developed and managed so that it delivers a targeted concept LOS that is feasible to attain over a twenty-year planning horizon.

TCRs for the state highways in Tuolumne County are listed below:

- ▲ SR 49 Transportation Concept Report (Caltrans 2013)
- ▲ SR 108 Transportation Concept Report (Caltrans 2014a)
- ▲ SR 108 Corridor System Management Plan (Caltrans 2008)
- ▲ SR 120 Transportation Concept Report (Caltrans 2011)
- ▲ SR 132 Transportation Concept Report (Caltrans 2014b)

The TCRs for SR 49, 108, 120, and 132 indicate that the concept LOS for these facilities within Tuolumne County are LOS C in rural areas and LOS D in urban areas. The portion of SR 108 that runs through Tuolumne County is addressed in the SR 108 TCR; however, the SR 108 Corridor System Management Plan from 2008 is the primary guiding document for this segment of SR 108. The concept LOS identified within the management plan is LOS C for the segments of SR 108 within Tuolumne County.

California Department of Transportation Statewide Transportation Improvement Program

The California Statewide Transportation Improvement Program (STIP) is a multiyear, statewide, intermodal program of transportation projects that is consistent with the statewide transportation plan and planning processes, and metropolitan plans. The STIP is prepared by Caltrans in cooperation with the Metropolitan Planning Organizations and Regional Transportation Planning Agencies. The STIP contains all capital and non-capital transportation projects or identified phases of transportation projects for funding under the Federal Transit Act and Title 23 of the U.S. Code.

California Department of Transportation Interregional Transportation Improvement Program

Caltrans' five-year Interregional Transportation Improvement Program is prepared pursuant to Government Code Section 14526, Streets and Highways Code Section 164, and the California Transportation Commission's STIP Guidelines. Regional agencies work with Caltrans to identify projects that will address improvements to the interregional transportation system and improve the movement of people, vehicles, and goods between regions.

Senate Bill 743

Senate Bill 743, passed in 2013, requires the California Governor's Office of Planning and Research (OPR) to develop new CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any." The California Natural Resources Agency is currently in the process of public review and consideration of the recommended updates to the CEQA Guidelines proposed by OPR; therefore, the proposed changes to the CEQA Guidelines have not been formally adopted at this time. If adopted as currently drafted, lead agencies would have until January 2020 to implement any changes related to transportation impact analyses. Because this EIR is already in preparation, even if adopted, the guidelines would not apply.

Senate Bill 1

Senate Bill 1, passed in 2017, invests \$54 billion over the next decade to fix roads, freeways and bridges in communities across California and includes investment in transit and safety improvements. These funds will be split equally between state and local investments.

Senate Bill 1 provides a new funding program for local agencies such as Tuolumne County to complete road maintenance and complete streets improvements. Tuolumne County's share of the funding for the year 2017-2018 is \$940,000, which will increase to \$5 million by 2027.

LOCAL

Regional Transportation Plan

TCTC serves as the state-designated Regional Transportation Planning Agency. As mandated by Chapter 2.5, Section 65080 et seq. of the California Government Code, each Regional Transportation Planning Agency must prepare a RTP by September 1, every 5 years. The 2016 RTP was completed and adopted by TCTC in 2017.

The 2016 RTP is a vision, policy, action, and financial plan that is focused on the future transportation needs of Tuolumne County for the next 25 years. The RTP focuses on transportation, and the movement of people and goods for purposes such as working, shopping, school, or recreation, by means of autos, trucks, buses, trains, planes, bicycling, or walking. The RTP must balance transportation priorities with anticipated funding because the RTP is a financially constrained document. A Financially Constrained Expenditure Plan Capital Improvement Program (FCEP-CIP) is included in the 2016 RTP. Additionally, the 2016 RTP includes new chapters including the Rural Sustainable Strategies chapter, the Regional and Interregional Transportation chapter, and six new chapters that address individual modes of transportation. The General Plan Update and 2016RTP are intended to be consistent with each other.

Tuolumne County General Plan

The goals, policies and implementation programs contained within the General Plan are intended to guide the development of a transportation system which will maintain and improve the quality of life in Tuolumne County while accommodating new growth. Because the proposed project is an update to the 1996 General Plan, which would, upon approval, supersede the 1996 General Plan, this Recirculated Draft EIR section addresses the General Plan Update. Specific General Plan Update policies related to traffic and circulation are identified below under Section 3.16.3, "Impact Analysis."

3.16.3 Impact Analysis

METHODS OF ANALYSIS

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 volumes are shown in Appendix Table 3 (see Appendix D of this EIR).

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 a.m. and 9:00 a.m. on a typical weekday while the PM peak hour is defined as the highest one hour of traffic flow counted between 4:00 p.m. and 6:00 p.m. 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 D). As described in Section 3.16.1 and depicted in Table 3.16-3, 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 3.16.1 and depicted in Table 3.16-4, 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 on the assumption that a number of intersection and roadway improvement projects (associated with the 2016 RTP) are completed by 2030. The Traffic Study Addendum updated the year 2030 roadway network to assume Tier 1a and Tier 1b FCEP-CIP projects are in place. These improvements include intersection signalization, roadway and intersection geometric modifications, roadway widening and realignment, and complete streets improvements (see Appendix D for a full list of improvements). These improvements will aid in the reduction of congestion by 2030. Traffic volumes were estimated based on projected 2030 growth and development in the General Plan Update, referred to as the Distinctive Communities Scenario in the Traffic Study Addendum.

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. The Traffic Study Addendum updated the year 2040 roadway network to assume Tier 1a, Tier 1b, and Tier 1c FCEP-CIP projects are in place. These improvements include intersection signalization, roadway and intersection geometric modifications, roadway widening and realignment, complete streets improvements, and bicycle signage enhancements (see Appendix D for a full list of improvements). These improvements will aid in the reduction of congestion by 2040. Traffic volumes were developed assuming implementation of the proposed General Plan Update at 2030 and 2040 growth levels and consistent with the Distinctive Communities Scenario in the Traffic Study Addendum. The projected impacts are the result of increased traffic, population growth and expected developments.

Traffic Performance Standards

LOS

Intersections and roadways in Tuolumne County have targeted LOS standards. Based on General Plan Implementation Program 4.A.b, the target LOS standard for minor collectors, major collectors, rural arterials and urban streets (County facilities) shall be LOS D, unless an exception is made by the County and the minimum LOS standard for local and residential roads shall be LOS C (Wood Rodgers 2015:10). The minimum peak hour LOS standard for all County intersections shall be LOS D (Wood Rodgers 2015:10).

The project study area includes SR 49, SR 108, SR 120 and SR 132. The Caltrans published *Guide for the Preparation of Traffic Impact Studies* (2002) states the following:

“Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities, however, Caltrans acknowledges that this may not be always feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS.”

Based on direction from Caltrans and County staff, the minimum LOS standard for all Caltrans facilities (roadways and intersections) within Tuolumne County shall be LOS D (Wood Rodgers 2015:10).

Therefore, for the purposes of this analysis a minimum acceptable LOS standard of LOS C shall apply to all local roads, and LOS D shall apply to all other remaining County and Caltrans facilities. Additionally, the minimum peak hour LOS standard for all intersections shall be LOS of D.

Vehicle Miles Traveled

The Wood Rodgers Traffic Study and Traffic Study Addendum forecasted vehicle miles traveled (VMT) in 2030 and 2040 under the Recent Trends (Existing) scenario in the Traffic Study and Traffic Study Addendum, and the proposed Distinctive Communities scenario (General Plan Update scenario) in the Traffic Study and Traffic Study Addendum.

Table 3.16-5 shows VMT in the year 2015, 2030, and 2040 under both the proposed General Plan Update and under the Recent Trends (Existing) scenario for roadways within Tuolumne County. As shown in Table 3.16-5, the 2030 and 2040 annual VMT would increase above 2015 conditions for both scenarios. This increase is largely a result of future population growth anticipated throughout the region. However, 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 2030 and 2040 were evaluated with and without the General Plan Update. As shown in Table 3.16-5, the General Plan Update would result in lower VMT when compared to the No Project scenario conditions for both 2030 and 2040. Therefore, the General Plan Update would result in circulation improvements and lower VMT when compared to conditions without the General Plan Update.

Table 3.16-5 Total Annual VMT

Scenario	VMT (Daily)
Baseline - 2015 Existing Conditions	1,829,654
Year 2030 - No Project Scenario	2,046,484
Year 2030 - Proposed General Plan Update	2,033,692
Year 2040 - No Project Scenario	2,168,520
Year 2040 - Proposed General Plan Update	2,152,846

Note: See Appendix D for the full Traffic Study.

Source: Wood Rogers 2016. See Appendix D of this EIR for the full Traffic Study.

As shown in Table 3.16-5, in 2040, the County is projected to generate approximately 2.15 million VMT. Projected development under the General Plan Update would result in an increase of over 300,000 VMT above baseline (2015) conditions.

The General Plan Update includes policies (see proposed General Plan policies below) that specifically address reducing VMT within Tuolumne County. Policy 4.A.7 states that it is the policy of the County to, when appropriate and feasible, support sustainable communities strategies to reduce VMT. Implementation Program 4.B.q states that the County should consider developing an impact fee program whereby all development would contribute towards the construction of pedestrian facilities to reduce VMT consistent with Senate Bill 743; and Implementation Program 4.B.u requires support of private efforts to construct bicycle and pedestrian facilities between high use areas as a means to reduce VMT. Additionally, Implementation Program 4.A.c includes a provision stating that projects needed to reduce VMT by improving the use of other modes of transportation, including, but not limited to, public transportation facilities (transit facilities and stops), park and ride facilities, bikeways, non-motorized trails and pedestrian facilities.

As described above, the proposed changes to the CEQA Guidelines to address VMT have not been formally adopted at this time. Therefore, this EIR does not include an impact analysis with a VMT-based threshold.

THRESHOLDS OF SIGNIFICANCE

Impacts relating to transportation and circulation would be considered potentially significant if projected development 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;

 - Impacts to roadway segments would be significant if traffic generated by projected development under the General Plan Update causes a local roadway segment within Tuolumne County that currently operates (or is projected to operate) at LOS C or better to degrade to LOS D or worse;
 - Impacts to roadway segments would be significant if traffic generated by projected development under the General Plan Update causes a minor collector, major collector, rural arterial, urban street,

or Caltrans roadway segment within Tuolumne County that currently operates (or is projected to operate) at LOS D or better to degrade to LOS E or worse;

- Impacts to roadway segments would be significant if traffic generated by projected development under the General Plan Update would add traffic and increase delay to any local roadway segment within Tuolumne County that currently operates at deficient LOS (LOS D or worse);
- Impacts to roadway segments would be significant if traffic generated by projected development under the General Plan Update would add traffic and increase delay to any minor collector, major collector, rural arterial, urban street, or Caltrans roadway segment within Tuolumne County that currently operates at deficient LOS (LOS E or worse);
- Impacts to intersections would be significant if traffic generated by projected development under the General Plan Update causes an intersection within Tuolumne County that currently operates (or is projected to operate) at LOS D or better to degrade to LOS E or worse;
- Impacts to intersections would be significant if traffic generated by projected development under the General Plan Update would add traffic and increase delay to any intersection within Tuolumne County that currently that is currently operating at deficient LOS (LOS E or worse);
- ▲ 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; or
- ▲ conflict with adopted policies relating to alternative transportation modes, including transit, walking, and bicycling.

It should be noted that these thresholds are very conservative in that any traffic added to a roadway segment or intersection that is already operating at or below the target LOS would be considered a significant impact.

It should be noted that the Traffic Study Addendum (see Appendix D) included analysis of a set of local roadway segments, and the analysis found that none of the analyzed local roadway segments would operate at deficient levels (worse than LOS C); therefore, local roadway segments are not addressed in detail below. See Appendix D for the detailed analysis. Air traffic-related hazards are analyzed in Section 3.9, "Hazards and Hazardous Materials," and those impacts would be less than significant.

GENERAL PLAN UPDATE POLICIES

The following policies and implementation programs from the General Plan Update are applicable to the evaluation of effects related to transportation and circulation:

Transportation Element

- ▲ **Policy 4.A.1:** Support and work with the TCTC 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.
 - **Implementation Program 4.A.a:** Plan, design and regulate roadways in accordance with the following functional classification system and designations which are reflected in the County's Regional

Transportation Plan, and are shown on the Master Plan of Streets and Highways in [General Plan] Figures 2.1 and 2.2, and in [General Plan] Appendix 2.A:

- Other Freeways and Expressways (Functional Class Code 2)
- Other Principal Arterial (Functional Class Code 3)
- Minor Arterial (Functional Class Code 4)
- Major Collector (Functional Class Code 5)
- Minor Collector (Functional Class Code 6)
- Local Road (Functional Class Code 7)
- Scenic Routes
- Urban Streets

- **Implementation Program 4.A.b:** Develop and manage the County's roadway system to maintain the following minimum levels of service (LOS) using methodology adopted by the Tuolumne County Transportation Council:

Arterials, Minor Collectors, Major Collectors, Urban Streets	LOS D, unless an exception is made
Local Roads	LOS C
Minimum Peak Hour for all Intersections	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. In allowing any exception to the standards, the County shall consider the following factors, including congestion/delays, rights of way, environmental impacts, safety, aesthetics, alternative transportation modes, and other geographical, 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 reasonably feasible measures and options are explored.

- **Implementation Program 4.A.c:** Establish priorities based on available funding for road improvement projects while balancing the need to support employment generating uses, affordable housing, and educational facilities. Emphasize, consistent with legal and funding constraints, the following road improvement projects in the County Road Improvement Program:

1. Projects needed to maximize the safety of the road system on high accident road segments and intersections, including, but not limited to, additional road widths and turn lanes, realignments, shoulder improvements, bridge improvements, hazard elimination and hazard control devices.
2. Projects needed to improve rideability and preserve past infrastructure investments, including, but not limited to, pavement life extension and rehabilitation. To provide the most effective expenditure of funds, maintenance shall emphasize the arterial and major collector segments of the road system utilizing the County Pavement Management System.
3. Projects needed to improve capacity and travel speed, particularly on roads carrying through traffic, and including, but not limited to, interchange improvements, bypasses, additional road lanes and/or widths, turn lanes, signalization and bridge improvements that help fire, police and other emergency services achieve acceptable response times.
4. Projects needed to reduce vehicle miles traveled by improving the use of other modes of transportation, including, but not limited to, public transportation facilities (transit facilities and stops), park and ride facilities, bikeways, non-motorized trails and pedestrian facilities.

- **Implementation Program 4.A.d:** Prioritize safety related road improvement projects needed on streets and highways which experience an unusual number of motor vehicle traffic accidents, design necessary improvements and implement necessary improvements in a timely manner to the greatest extent possible.

- **Implementation Program 4.A.d.1** – Support alternative energy vehicles and development of electric charging stations for passenger vehicles.
- **Implementation Program 4.A.d.2** – Prioritize a Safe Routes for School Program by partnering with the school districts and the TCTC to improve safety and increase walking and bicycling to school.
- **Implementation Program 4.A.d.3** – Support a regional effort for a Local Road Safety Plan for planning and prioritizing safety improvement projects.
- ▲ **Policy 4.A.2:** Dedicate, widen and construct roads according to design and access standards generally defined in Appendix 2.A and, more specifically, the County Ordinance Code and the Countywide Traffic Circulation Improvement Program. Exceptions to these standards may be necessary and shall be approved by the Community Resources Agency Director, who shall ensure that safe and adequate public access and circulation are preserved by such exceptions.
 - **Implementation Program 4.A.e:** Require that roadway rights-of-way be wide enough to accommodate the lanes needed to carry long-range forecasted traffic volumes, as well as planned bikeways, pedestrian and transit facilities and required drainage, utilities, landscaping, cuts and fills, and suitable separations. Minimum right-of-way criteria for each class of roadway are specified in Appendix 2.A of this Element and the County Ordinance Code. However, additional right-of-way, beyond the minimum criteria may be required to provide for location specific needs.
 - **Implementation Program 4.A.f:** Require Complete Streets design, where feasible and appropriate, in road planning documents, detailing pedestrian and bicycle lane infrastructure and alternative transportation connectivity, such as bus stops and dedicated bus pullout areas.
 - **Implementation Program 4.A.g:** Require local roads serving new development to be aligned with existing local roads on abutting properties and extend existing roads to link with other roads wherever possible to provide continuity and provide safety in the local road system.
 - **Implementation Program 4.A.h:** Accommodate through traffic in a manner that discourages the use of neighborhood Local Roads. This through traffic, particularly truck traffic, shall be directed to appropriate routes in order to maintain public safety and local quality of life by using design measures, such as appropriate signage and traffic calming devices.
 - **Implementation Program 4.A.i:** Maximize intersection spacing on arterial and collector roadways and thoroughfares and minimize driveway encroachments. Except where specific site conditions warrant, no new intersection of a local road or new driveway with an arterial or collector road shall be closer to an existing local road or driveway than 500 feet in rural areas or 200 feet within urban areas.
 - **Implementation Program 4.A.j:** Promote the installation of traffic calming devices to improve street safety and access for pedestrians and bicyclists.
- ▲ **Policy 4.A.3:** 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.
 - **Implementation Program 4.A.k:** Support the State's goal of maintaining Level of Service C on State Highways and at intersections with County roads. If meeting the State's goal is not feasible after considering the following factors, congestion/delays, rights of way, environmental impacts, safety, aesthetics, and other geographical, environmental, social or economic factors on which the County may base findings to allow an exceedance of the standards, the minimum LOS standard for the State Highway System shall be no lower than LOS D. The methodology for evaluating LOS on State Highways shall be pursuant to the current version of the Highway Capacity Manual.

- **Implementation Program 4.A.l:** Maintain, periodically update and implement the Tuolumne County Master Plan of Streets and Highways. This road network should include roadways parallel to regional facilities so that the regional roadway system can function effectively and efficiently. Funding for this network should be provided from a combination of sources, such as new development, sales tax, gas tax, State partnerships and federal transportation programs.
- **Implementation Program 4.A.m:** Collaborate with neighboring jurisdictions to provide acceptable and compatible levels of service and joint funding on the roadways that cross the County's boundaries.
- ▲ **Policy 4.A.4:** Set forth recommendations for the future of the County's streets and highways system in each update of the Regional Transportation Plan.
 - **Implementation Program 4.A.n:** Cooperate with the Tuolumne County Transportation Council in the implementation of the Regional Transportation Plan.
 - **Implementation Program 4.A.o:** Encourage the Tuolumne County Fire Department and the Tuolumne County Sheriff's Department to identify transportation issues prior to each revision of the Regional Transportation Plan by the TCTC. Fire Department and Sheriff's Department comments regarding emergency response corridors, evacuation routes and needed improvements, such as helispots, should be considered when revising the list of Circulation Improvement Projects.
- ▲ **Policy 4.A.5:** Consider the traffic impacts of development in relation to General Plan growth policies and require new development to provide mitigation for its fair share of impacts to the County's transportation system. Assess the needs of street and road users regularly through the land development application review process.
 - **Implementation Program 4.A.p:** 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.
 - **Implementation Program 4.A.q:** Evaluate the impacts of new development on the County's transportation system and require such development to provide mitigation for its fair share of the impact. New development that is determined by the County to create or exacerbate an identified deficiency in the transportation system may not be approved if a plan and funding program to provide needed roadway improvements have not been approved or if the mitigation provided by the development will not correct the deficiency or if it will create an additional burden on County transportation funds. This implementation program shall not apply to new development for which the County makes a finding of overriding considerations for traffic impacts related to the new development in accordance with the California Environmental Quality Act.
 - **Implementation Program 4.A.r:** Consider implementing an alternative to LOS for evaluating transportation impacts, such as vehicles miles traveled, as described in the CEQA guidelines.
- ▲ **Policy 4.A.6:** Strive to maintain all components of the transportation system at adopted level of service standards.
 - **Implementation Program 4.A.s:** 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.
 - **Implementation Program 4.A.t:** Require new development to mitigate that development's impacts on the local and regional transportation system through the fair share contribution of improvements to the master planned system and/or the payment of Traffic Impact Mitigation Fees. Exceptions to the payment of traffic impact mitigation fees may apply to land uses listed in the Traffic Impact

appropriate. Support the efforts of the TCTC to develop an Active Transportation Plan for Tuolumne County, The State Route 49 Complete Streets and State Route 49 Congested Corridor Plan.

- **Implementation Program 4.B.c:** Provide multi-modal access to activity centers such as public facilities, commercial centers and corridors, employment centers, transit stops, schools, parks, recreation areas, and tourist attractions.
- **Implementation Program 4.B.d:** Promote walking and bicycling through education and outreach programs and activities such as commute campaigns, classes that teach cycling skills, and providing route maps.
- ▲ **Policy 4.B.2:** Expand and improve pedestrian sidewalks and facilities focusing on safety, connectivity, and accessibility.
 - **Implementation Program 4.B.e:** Develop a Sidewalk Priority Plan identifying all existing sidewalks as well as future sidewalks throughout the County. Prioritize retrofitting existing and constructing new sidewalks that connect residents to schools, bus lines and other transit stops, and parks and community centers.
 - **Implementation Program 4.B.f:** Require safe and adequate crossing facilities that minimize pedestrian exposure to vehicular traffic, such as curb extensions or refuge islands, wherever feasible.
 - **Implementation Program 4.B.g:** Develop new or revised street and street crossing design standards to improve pedestrian safety, convenience, and comfort, both as a part of routine public works projects and as a part of ongoing development.
 - **Implementation Program 4.B.h:** Update the local street design standards for urban areas, where practicable, to include Universal Design criteria for street infrastructure such as sidewalks, pedestrian curb ramps, crosswalks, street lighting, shade trees, and curb extensions to accommodate all users, including people with disabilities and other special needs.
 - **Implementation Program 4.B.h.1:** Include planned sidewalks, roadway shoulders, bike lanes, and transit stops in the design of major roadway rehabilitation or other improvement projects to accelerate the build out of the complete streets system.
- ▲ **Policy 4.B.3:** Expand and improve the bikeways within Tuolumne County, focusing on safety, connectivity, and accessibility.
 - **Implementation Program 4.B.i:** Pursue state and federal funds earmarked for new bicycle paths and transit improvements.
 - **Implementation Program 4.B.j:** Encourage provisions for bicycle facilities at transit nodes, recreational facilities and public spaces.
 - **Implementation Program 4.B.j.1:** Use local road funds to construct sidewalks, bike lanes, and roadway shoulder when performing major pavement maintenance projects.
- ▲ **Policy 4.B.4:** Encourage the use of alternative modes of transportation by incorporating public transit, bicycle and pedestrian modes in County transportation planning and by requiring new development to provide adequate pedestrian and bikeway facilities at suitable locations.
 - **Implementation Program 4.B.k:** Consider the needs of pedestrians, bicyclists and individuals with disabilities in the project design review process.

- **Implementation Program 4.B.l:** Require, when appropriate and warranted, new development to contribute to, or construct, bicycle and pedestrian facilities. New development zoned R-1, R-2, R-3, C-O, C-1, C-2, C-K and M-U occurring within a two mile radius of a school, shopping center, life enrichment facility or work concentration area and located along a major or minor collector or arterial shall be targeted for providing bicycle and pedestrian facilities within the new development. If existing conditions prohibit development from constructing warranted facilities, such developments should set aside sufficient room along the project frontage and pay in-lieu fees to construct bicycle and pedestrian facilities.
- **Implementation Program 4.B.m:** Where appropriate, require new development outside of identified communities to provide and stripe minimum four-foot wide shoulders within the development to accommodate pedestrians unless average lot sizes are greater than two acres.
- **Implementation Program 4.B.n:** 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.
- **Implementation Program 4.B.o:** Require, when appropriate, new commercial, high density residential and recreational development to provide and maintain bicycle storage facilities.
- **Implementation Program 4.B.p:** Provide and plan for pedestrian access routes to designated transit corridors in new development.
- **Implementation Program 4.B.q:** Consider developing an impact fee program whereby all development would contribute towards the construction of pedestrian facilities to reduce vehicle miles traveled consistent with the California Environmental Quality Act.
- **Implementation Program 4.B.r:** Require local roads serving new development to include, where feasible, bicycle and pedestrian infrastructure that links to existing bicycle and pedestrian facilities.
- **Implementation Program 4.B.s:** Require, where appropriate and warranted, dedication of right-of-way for and/or construction of bicycle and pedestrian facilities along routes identified in the priority and non-priority lists contained in the Non-Motorized Element of the County of Tuolumne Regional Transportation Plan.
- ▲ **Policy 4.B.5:** 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.
 - **Implementation Program 4.B.t:** Require all new community plans to include a bicycle and pedestrian routes plan. These bicycle and pedestrian route plans should illustrate an integrated connection to the existing bicycle, roadway and pedestrian network outside of the community, either through connections to urban centers and workplace locations or through connections to recreation infrastructure identified in the Recreation Master Plan.
 - **Implementation Program 4.B.u:** Support private efforts to construct bicycle and pedestrian facilities between high use areas as a means to reduce vehicle miles traveled. Consider crediting the cost of such facilities towards traffic impact mitigation fees.
 - **Implementation Program 4.B.v:** New bicycle and pedestrian facilities should be designed to accommodate preferred safe routes to the school from nearby population centers.
 - **Implementation Program 4.B.w:** Encourage the construction of pedestrian facilities and Class I and Class II bicycle facilities, such as widened and striped shoulders or completely separate facilities. In

high traffic/high speed motorized transportation areas which receive high use by school children, require the construction, where feasible, of barriers between motorized and non-motorized traffic as well as provision of other safety features, such as special signal types, traffic calming features, and increased signage warning drivers of the presence of children walking and using bicycles. Such barriers can include, but are not limited to, construction of an asphalt or concrete curb or berm between motorized and non-motorized traffic ways.

- **Implementation Program 4.B.x:** Identify routes for new bicycle and/or pedestrian facilities to link existing residential development to nearby commercial areas and community centers and facilities, such as schools, and to link existing and new identified communities to one another where feasible.
- **Implementation Program 4.B.y:** Integrate pedestrian routes, sidewalks and bicycle lanes into continuous networks within identified communities.
- ▲ **Policy 4.B.6:** Actively investigate and seek alternative funding sources for bicycle and pedestrian facilities.
 - **Implementation Program 4.B.z:** Encourage the Tuolumne County Transportation Council to set aside two percent (2%) of all new apportionments of Local Transportation Fund (LTF) dollars to fund bicycle and pedestrian facility projects listed in the Regional Transportation Plan or Recreation Master Plan.
 - **Implementation Program 4.B.aa:** Construct bicycle and pedestrian facilities as funds become available.
 - **Implementation Program 4.B.bb:** Continue to explore new funding sources for construction and maintenance of bicycle and pedestrian facilities.
- ▲ **Policy 4.C.1:** Support the development of all public and social service transportation systems as outlined in the Tuolumne County Transit Development Plan.
 - **Implementation Program 4.C.a:** Encourage the Tuolumne County Transit Agency to implement the Tuolumne County Transit Development Plan.
 - **Implementation Program 4.C.b:** Encourage the Tuolumne County Transit Agency to pursue public input into the operation of social service transportation systems as received via rider surveys, the Social Service Transportation Advisory Council and comments made during the annual unmet transit needs hearing.
 - **Implementation Program 4.C.c:** Promote coordination among all public and social service transportation operations to provide the highest level of efficiency and cost-effectiveness possible.
 - **Implementation Program 4.C.d:** Encourage the Tuolumne County Transit Agency to cooperate with public transportation providers, State and Federal Governments and private business to fund transportation services.
 - **Implementation Program 4.C.e:** Require new development projects to analyze their contribution to increased use of public transit and to contribute towards improvements if significant impacts are identified.
- ▲ **Policy 4.C.2:** Encourage the Tuolumne County Transportation Council to enhance transit trips by improving performance, reliability, safety, security and facilities.
 - **Implementation Program 4.C.f:** 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.

- **Implementation Program 4.C.g:** Encourage the Tuolumne County Transit Agency to monitor the efficiency of the transit program and maintain compliance with established standards on a continual basis.
- **Implementation Program 4.C.h:** Encourage the Tuolumne County Transit Agency to strive to establish 60 to 90 minute service frequency in high priority areas such as Sonora, Columbia and Jamestown, 120 to 180 minute service frequency on inter-city routes that service Sierra Village and Tuolumne and life line services to remote communities, such as Groveland.
- **Implementation Program 4.C.i:** Support the Tuolumne County Transportation Councils efforts to expand and improve transit service by methods such as increased frequency of more popular routes, longer operating hours, and more stops in key locations and its consistency as identified in the Transit Development Plan Update for Tuolumne County Transit.
- **Implementation Program 4.C.j:** Support an inter-county bus transfer stop in Columbia near State Route 49.
- **Implementation Program 4.C.k:** Support direct transit services at major commercial destinations and activity centers.
- **Implementation Program 4.C.l:** Support reasonable efforts to expand recreational opportunities with transit services.
- ▲ **Policy 4.C.3:** Encourage the Tuolumne County Transit Agency to meet the needs of the transportation disadvantaged, including youths, elderly, persons with disabilities and the economically disadvantaged.
 - **Implementation Program 4.C.m:** Encourage eligible claimants to maximize the use of Federal and State funds for public transportation purposes.
 - **Implementation Program 4.C.n:** Encourage the Tuolumne County Transit Agency to provide flexible and reliable demand-responsive services to paratransit patrons by striving to eliminate dial-a-ride trip turn downs and limiting subscription dial-a-ride to 50% of hourly capacity.
- ▲ **Policy 4.C.4:** Encourage effective marketing of all existing transportation services in Tuolumne County to improve awareness of existing services.
 - **Implementation Program 4.C.o:** Encourage the Tuolumne County Transit Agency to adopt a marketing plan that provides user friendly route schedules and service brochures, cultivates media contacts and makes special efforts to promote service to target markets.
 - **Implementation Program 4.C.p:** Encourage the Tuolumne County Transit Agency to market the transit trolley service to tourists to reduce daily internal County trips.
 - **Implementation Program 4.C.q:** Support efforts of the Tuolumne County Transportation Council efforts to increase transit ridership through marketing and outreach campaigns.
- ▲ **Policy 4.C.5:** Support the development of medium and high-density housing, commercial and offices along transit routes.
 - **Implementation Program 4.C.s:** Encourage the following land use designations in areas served by transit: low density residential land use designations within 3/4 mile of a transit corridor medium density residential designations within 2 1/4 mile of transit corridors.

- **Implementation Program 4.C.t:** Coordinate transit system development with community planning and development efforts by implementing the following land use policies:
 1. Encourage new facilities which may have public transit impacts to locate within ½ mile of high frequency service areas, with pedestrian access to current bus stops.
 2. Require, when appropriate, new large developments, such as urban density subdivisions, multi-family housing complexes, commercial centers or business parks, to provide amenities, such as shelters and benches, for transit users.
 3. Encourage low income/senior/disabled housing projects within ½ mile from existing high frequency service corridors.
- ▲ **Policy 4.C.6:** Support street designs that accommodate transit facilities and operations.
 - **Implementation Program 4.C.u:** Support transit shelters that are comfortable, attractive, and accommodate transit riders. Ensure that shelters provide shade, route information, and benches.
- ▲ **Policy 4.C.7:** Support the use of public transit during emergency evacuations by coordinating efforts through the Emergency Operations Plan.
- ▲ **Policy 4.D.1:** Work with the owners of the Sierra Railroad to apply to the State and Federal Government for funding to rehabilitate Sierra Railroad.
- ▲ **Policy 4.D.2:** Support the revival of passenger, excursion and film train operations on the Sierra Railroad to the extent that such operations themselves can be proven cost-effective and do not conflict with freight operations on the Railroad.
- ▲ **Policy 4.D.3:** Encourage industrial and recreation land uses along the Sierra Railroad that may increase rail operations and which will not detract from use of the Railroad by the filming industry.
- ▲ **Policy 4.D.4:** Designate land within along the Sierra Railroad with rail access for commercial, industrial or business park development on the General Plan land use diagrams and zone the property accordingly to increase the inventory of land zoned for business related development with the option of utilizing rail transportation.
- ▲ **Policy 4.D.5:** Support the intermodal linkage of truck on rail as a technique of reducing truck AADT (Annual Average Daily Traffic) on highway corridors.
 - **Implementation Program 4.D.a:** Support State and Federal efforts to levy higher user charges for mitigating truck traffic impacts.
- ▲ **Policy 4.D.6:** Encourage the use of rail as the preferred method to move high load tonnage commodities.
- ▲ **Policy 4.D.7:** Develop through cooperation with all agencies involved, a railroad system that provides for the convenient and reliable movement of freight and passengers.
- ▲ **Policy 4.E.1:** Support the development of the Columbia and Pine Mountain Lake (PML) Airports in accordance with the Tuolumne County Airport Land Use Compatibility Plan and Airport Master Plans.
 - **Implementation Program 4.E.a:** Continue to pursue funds for maintenance and capital improvement projects for both airports.

- ▲ **Policy 4.E.2:** Support the continued existence of an Airport Enterprise Fund for each airport, and the dedication of all revenues generated from airport properties for use in funding airport operational and capital improvement costs.
 - **Implementation Program 4.E.b:** Continue to strive to improve the service available at both airports, while becoming financially more self-supporting.
- ▲ **Policy 4.E.3:** Assist the Tuolumne County Office of Emergency Services in developing a workable plan which will create a county-wide system of emergency heliports. This will include the specific task of obtaining night lighting for the Bald Mountain, Buck Meadows and Moccasin heliports.
- ▲ **Policy 4.E.4:** Support operations at the Columbia and Pine Mountain Lake Airports, and seek funding sources to perpetuate the County Airports Department as a viable resource for aviation in Tuolumne County
 - **Implementation Program 4.E.c:** Support sources of capital improvement funds for the Columbia and PML Airports.
- ▲ **Policy 4.E.5:** Encourage enhanced levels of service and aviation opportunities available at the County airports.
 - **Implementation Program 4.E.d:** Maintain an array of air-related service businesses, such as air charter, helicopter, pilot's training, maintenance, search and rescue, air ambulance and other aviation related businesses presently using the airports.
 - **Implementation Program 4.E.e:** Develop presently vacant property at the Columbia Airport with industries or businesses that are aviation-related, aviation-dependent, or otherwise compatible with the future use of the Columbia Airport.
 - **Implementation Program 4.E.f:** Promote the retention of the California Department of Forestry and Fire Protection (CAL FIRE) Air Attack Base at the Columbia Airport by accommodating CAL FIRE operational needs at the airport and working with the local community to influence the State to keep the Air Attack Base at its current location.
 - **Implementation Program 4.E.g:** Support proposals for a public air carrier service whose purpose would be to provide frequent flights to bring Tuolumne County closer, in terms of travel time, to other areas.
- ▲ **Policy 4.F.1:** Plan for future airport operations, considering possible expansion of airport operations, services and the proximity of adjacent land uses.
 - **Implementation Program 4.F.a:** Implement and periodically update the Columbia Airport Master Plan in order to update operational and safety procedures, reflect State and Federal mandates, better utilize Airport property and recommend land use compatibility standards for land surrounding the Airport.
 - **Implementation Program 4.F.b:** Implement and periodically update the Pine Mountain Lake Airport Master Plan to guide the development of the Pine Mountain Lake Airport. The master plan should reflect desired operational and safety procedures, State and Federal mandates, and the internal needs of the Airport.
 - **Implementation Program 4.F.c:** Seek funding to allow the Airport Land Use Commission to update the Airport Land Use Compatibility Plan periodically to ensure that land use decisions affecting property in the vicinity of the County airports are consistent with the continued safe operation of the airports.

- ▲ **Policy 4.F.2:** Encourage development in the vicinity of County airports that would not cause land use conflicts, hazards to aviation or hazards to the public.
 - **Implementation Program 4.F.d:** Require future County-owned, public-use airport facilities and surrounding land use zones to be master planned prior to operation in order to establish safe operation of the airport.
 - **Implementation Program 4.F.e:** Review General Plan Amendments, Zone Changes, and development applications within the referral area of a County airport for consistency with the Airport Land Use Compatibility Plan in order to continue safe operation of the airports.

PROJECT IMPACTS

This section presents a programmatic-level analysis of potential impacts associated with transportation and circulation from projected development under the General Plan Update. Evaluation of environmental impacts associated with the General Plan Update considers the development that would be facilitated by the General Plan Update, in accordance with goals, policies, and implementation programs, to accommodate projected growth in the County. It should be noted that the County's population is projected to grow by 0.6 percent annually over the planning horizon (2040). As discussed in detail in Chapter 2, "Project Description," and the introduction to Chapter 3, this is a relatively low amount of growth.

Impact 3.16-1: Impacts to Roadway Segment Operations

Projected development under the General Plan Update would generate vehicle trips that would result in LOS deficiencies to roadway segments within the local circulation system based on a threshold of LOS D. The fiscally constrained roadway improvements planned in the 2016 RTP (Tier 1a, 1b, and 1c) are intended to address projected deficiencies for roadway segments within the County. However, after the identified improvements are implemented, fifteen roadway segments could still operate at deficient LOS. Impacts are **potentially significant**.

Projected development under the General Plan Update would increase traffic on the Tuolumne County roadway system. Impacts to roadway capacities resulting from projected development under the General Plan Update are discussed below. Table 3.16-6 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. Tier 1a, Tier 1b, and Tier 1c projects in the 2016 RTP and FCEP-CIP include improvements that would be implemented in three stages. The first stage would include all Tier 1a FCEP-CIP projects that are planned to begin construction in the next six years. Tier 1b FCEP-CIP projects would be constructed in the next six to fifteen years by 2030 and Tier 1c FCEP-CIP projects are planned for construction in the next sixteen to 25 years by the year 2040. 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. Programmed improvements include the widening of SR 108 and the construction of the planned Greenley Road Extension, and a list of all roadway segment improvements for year 2030 and year 2040 are included in Appendix D of this EIR.

There are seven roadway segments currently operating at unacceptable LOS, below LOS D, as shown in Table 3.16-3: SR 49 between Bell Mooney Road and South Junction Main Street, SR 49 between Fifth Avenue and East Junction SR 108 (East of Golf Links Road), SR 49 between Washington Street 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. Accounting for the programmed improvements, projected development under the General Plan Update would cause an additional eight roadway segments to operate at an unacceptable LOS standard below LOS D. The following roadway segments would not meet the minimum LOS D with the projected development under the General Plan Update and the associated roadway improvements:

- ▲ Roadway 3 - SR 108 between O'Byrnes Ferry Road and SR 120 (Yosemite Junction)
- ▲ Roadway 4 - SR 108 between SR 120 (Yosemite Junction) and SR 49 (Montezuma Junction)
- ▲ Roadway 5 - SR 108 between SR 49 (Stockton Road) and S. Washington Street/Lime Kiln Road
- ▲ Roadway 23 - SR 49 between SR 49 (Montezuma Junction) and Bell Mooney Road
- ▲ Roadway 24 - SR 49 between Bell Mooney Road and South Junction Main Street
- ▲ Roadway 27 - SR 49 between Fifth Avenue and Stockton Road/SR 108
- ▲ Roadway 31 - SR 49 between Stockton Road and Dodge Street
- ▲ Roadway 32 - SR 49 north of Dodge Street
- ▲ Roadway 33 - SR 49 south of N. Washington Street/Columbia Way
- ▲ Roadway 34 - SR 49 north of N. Washington Street/Columbia Way
- ▲ Roadway 35 - SR 49 east of Parrotts Ferry Road
- ▲ Roadway 52 - Mono Way west of Sanguinetti Road
- ▲ Roadway 69 - Greenley Road between Cabezut Road/Morning Star Road and Delnero Drive
- ▲ Roadway 77 - Tuolumne Road between Mono Way and Lambert Lake Road
- ▲ Roadway 116 - S. Washington Street between Restano Way and Church Street

Table 3.16-6 Roadway Segments with an Unacceptable LOS with Projected Development Under the General Plan Update

No.	Roadway/Highway Segment	LOS Type# (2030/2040)	ADT 2030	LOS* 2030	ADT 2040	LOS* 2040	Acceptable
3	SR 108 b/w O'Byrnes Ferry Rd and SR 120 (Yosemite Junction)	4/12	20,764	E	22,306	E	NO
4	SR 108 b/w SR 120 (Yosemite Junction) and SR 49 (Montezuma Junction)	4/12	19,863	E	21,166	E	NO
5	SR 108 b/w SR 49 (Stockton Rd) and S Washington St/Lime Kiln Rd	4/12	21,736	E	22,966	E	NO
23	SR 49 b/w SR 49 (Montezuma Jct) and Bell Mooney Rd	4/12	21,104	E	23,275	E	NO
24	SR 49 b/w Bell Mooney Rd and South Jct Main St	210	21,800	E	24,086	E	NO
27	SR 49 b/w Fifth Ave and Stockton Rd/SR108	210	25,196	E	29,879	E	NO
31	SR 49 b/w Stockton Rd and Dodge St	211	17,414	E	17,924	E	NO
32	SR 49 n/o Dodge St	211	20,283	E	15,929	D	No in 2030
33	SR 49 s/o N Washington St/ Columbia Way	211	17,110	E	12,611	D	No in 2030
34	SR 49 n/o N Washington St/ Columbia Way	211	16,133	E	12,551	D	No in 2030
35	SR 49 e/o Parrotts Ferry Rd (Columbia WYE)	211	14,027	D	17,021	E	No in 2040
52	Mono Way w/o Sanguinetti Rd	210	22,167	E	22,058	E	NO
69	Greenley Rd b/w Cabezut Rd/ Morning Star Rd and Delnero Dr	212	11,922	D	15,939	E	No in 2040
77	Tuolumne Rd b/w Mono Way and Lambert Lake Rd	212	15,689	D	16,235	E	No in 2040
116	S Washington St b/w Restano Way & Church St	212	17,700	E	17,706	E	NO

Source: Wood Rogers 2016. See Appendix D of this EIR for the full Traffic Study.

Scheduled improvements would not improve LOS to acceptable levels for any of the fifteen roadway segments, listed in Table 3.16-6, that are not projected to meet LOS standards with implementation of the proposed General Plan Update in 2030 and 2040.

Implementation Program 4.A.c establishes priorities based on available funding for road improvement projects and sets criteria for incorporating road improvement projects into the County Road Improvement Program.

The inclusion of Policy 4.A.5 in the General Plan Update would require the consideration of the traffic impacts resulting from development in relation to General Plan growth policies and require new development to provide mitigation for its fair share of impacts to the County's transportation system. Additionally, it would require the assessment of the needs of street and road users regularly through the land development application review process. Implementation Program 4.A.q would require the evaluation of the impacts of new development on the County's transportation system and require such development to provide mitigation for its fair share of the impact. New development that is determined by the County to create or exacerbate an identified deficiency in the transportation system will not be approved if a plan and funding program to provide needed roadway improvements have not been approved or if the mitigation provided by the development will not correct the deficiency or if it will create an additional burden on County transportation funds. Implementation Program 4.A.q also provides that it shall not apply to new development for which the County makes a finding of overriding considerations for traffic impacts related to the new development in accordance with the California Environmental Quality Act.

Thus, it is the intent of the County to mitigate the fair-share of impacts to roadway segment operating conditions caused by planned development in the General Plan Update. However, if the necessary improvements are needed along facilities for which the County does not have full jurisdictional control (i.e., Caltrans and City of Sonoma roadway facilities), it cannot be assured that improvement will be approved and constructed.

Additionally, due to funding constraints and uncertainty of the timing of implementation of improvements, it cannot be assured that the roadway improvements for which development under the General Plan Update would pay its fair share, would be constructed within the necessary time frame (or at all) to improve operating condition along roadway segments to acceptable levels.

Therefore, because fifteen roadway segments would not meet the LOS D threshold for roadway operations, and because the fair share payments of development under the General Plan Update would not ensure the improvements necessary to improve operating conditions along roadway segment to acceptable levels would be implemented, impacts would be **potentially significant**.

Mitigation Measures

Mitigation Measure 3.16-1: Roadway Improvements

As part of its update of the Tuolumne County Countywide Traffic Circulation Improvement Program, the County shall evaluate the following improvements for inclusion in the Program, thus allowing for funding through the Tuolumne County Traffic Impact Mitigation Fee program. The improvements shall be incorporated into the Program if they are considered feasible and consistent with General Plan policies. If further analysis demonstrates that an alternative improvement would be adequate to achieve the target LOS, that alternative improvement shall be incorporated into the Program if feasible and consistent with General Plan policies.

Roadway 3, Roadway 4, Roadway 5, and Roadway 23 – Widen the Segments to Four Lanes

Widen the following segments to four lane expressways, consistent with FCEP-CIP Tier 3 projects, to improve conditions to LOS A in 2030 and 2040:

- ▲ Roadway 3 - SR 108 between O'Byrnes Ferry Road and SR 120 (Yosemite Junction)
- ▲ Roadway 4 - SR 108 between SR 120 (Yosemite Junction) and SR 49 (Montezuma Junction)
- ▲ Roadway 5 - SR 108 between SR 49 (Stockton Road) and S. Washington Street/Lime Kiln Road
- ▲ Roadway 23 - SR 49 between SR 49 (Montezuma Junction) and Bell Mooney Road

Roadway 24 and Roadway 27 – Widen the Segment to Five Lanes

Widen the following segments to five lanes, consistent with FCEP-CIP Tier 2 projects, to improve conditions to LOS C in 2030 and 2040:

- ▲ Roadway 24 - SR 49 between Bell Mooney Road and South Junction Main Street
- ▲ Roadway 27 - SR 49 between Fifth Avenue and Stockton Road/SR 108

Roadway 32, Roadway 33, and Roadway 34 - Construct the North-South Connector Phase 1

Construct the North-South Connector Phase 1 Greenley Road Extension to SR 49, consistent with FCEP-CIP Tier 2, by year 2030 to improve operating conditions along the following roadway segments:

- ▲ Roadway 32 - SR 49 north of Dodge Street,
- ▲ Roadway 33 - SR 49 south of N. Washington Street/Columbia Way
- ▲ Roadway 34 - SR 49 north of N. Washington Street/Columbia Way

If the aforementioned roadway improvement is deemed infeasible, or if further analysis demonstrates it will not result in acceptable operating conditions along the applicable roadway segment, the following improvements shall be incorporated:

- ▲ Construct the Western Bypass that would extend from SR 108/49 (south of Jamestown) to Rawhide Road. The Western Bypass is projected to further divert and reduce traffic on this segment of SR 49.
- ▲ Improve alternative modes of transportation along Roadways 32, 33, and 34, such as transit service or bicycle and pedestrian infrastructure.

Roadway 35 – Construct Left Turn Lane

Construct a continuous two-way-left-turn median lane to improve conditions to an acceptable LOS D in the year 2040 to improve operating conditions along Roadway 35 - SR 49 east of Parrots Ferry Road (Pedro Wye)

If the aforementioned roadway improvement is deemed infeasible, or if further analysis demonstrates it will not result in acceptable operating conditions along the applicable roadway segment, the following improvements shall be incorporated:

- ▲ Widen the segment to five lanes to improve conditions to LOS A in the year 2040.
- ▲ Improve alternative modes of transportation along this roadway segment, such as transit or bicycle and pedestrian infrastructure.

Roadway 52 and Roadway 116 - Construct the North-South Connector Phase 2

Construct the North-South Connector Phase 2, consistent with FCEP-CIP's Tier 2 and Tier 3, that would extend Fir Drive from Mono Way to the Greenley Road Extension, which may reduce traffic on the following segments:

- ▲ Roadway 52 - Mono Way west of Sanguinetti Road
- ▲ Roadway 116 - S. Washington Street between Restano Way and Church Street

If the aforementioned roadway improvement is deemed infeasible, or if further analysis demonstrates it will not result in acceptable operating conditions along the applicable roadway segment, the following improvement shall be incorporated:

- ▲ Improve alternative modes of transportation along Roadways 52 and 116, such as transit service, bicycle and pedestrian infrastructure.

Roadway 77 - Widen the Segment to Five Lanes

Widen to five lanes Roadway 77 - Tuolumne Road from Mono Way to Lambert Lake Road to improve conditions to an acceptable LOS D in the year 2040.

If the aforementioned roadway improvement is deemed infeasible, or if further analysis demonstrates it will not result in acceptable operating conditions along the applicable roadway segment, the following improvement shall be incorporated:

- ▲ Improve alternative modes of transportation along this roadway segment, such as transit service or bicycle and pedestrian infrastructure.

Roadway 31 - Construct the North-South Connector Phase 2

Consistent with the FCEP-CIP's Tier 2 and Tier 3, construct the North-South Connector Phase 2 from Fir Drive Extension to SR 108, by the year 2040.

If the aforementioned roadway improvement is deemed infeasible, or if further analysis demonstrates that it will not result in acceptable operating conditions along the applicable roadway segment, the following improvements shall be incorporated:

- ▲ Construct the Western Bypass that would extend from SR 108/49 (south of Jamestown) to Rawhide Road. The Western Bypass is projected to further divert and reduce traffic on this segment of SR 49, or
- ▲ Improve alternative modes of transportation along Roadway 31, such as transit service or bicycle and pedestrian infrastructure.

Roadway 69 - Construct the North-South Connector Phase 2

Consistent with the FCEP-CIP's Tier 2 and Tier 3, construct the North-South Connector Phase 2 from Fir Drive Extension to SR 108, to improve conditions to an acceptable LOS by the year 2040 on Roadway 69 - Greenley Road between Cabezut Road/Morning Star Road and Delnero Drive.

If the aforementioned roadway improvement is deemed infeasible, or if further analysis demonstrates it will not result in acceptable operating conditions along the applicable roadway segment, the following improvement shall be incorporated:

- ▲ Construct the Cabezut Road Extension from the Fir Drive Road Extension to Phoenix Lake Road, to further divert and reduce traffic on this segment of Greenley Road.

Significance after Mitigation

The following roadways segments would operate at acceptable LOS in years 2030 and 2040 with the implementation of the associated mitigation measure:

- ▲ Roadway 3 - SR 108 between O'Byrnes Ferry Road and SR 120 (Yosemite Junction)
- ▲ Roadway 4 - SR 108 between SR 120 (Yosemite Junction) and SR 49 (Montezuma Junction)
- ▲ Roadway 5 - SR 108 between SR 49 (Stockton Road) and S. Washington Street/Lime Kiln Road
- ▲ Roadway 23 - SR 49 between SR 49 (Montezuma Junction) and Bell Mooney Road
- ▲ Roadway 24 - SR 49 between Bell Mooney Road and South Junction Main Street
- ▲ Roadway 27 - SR 49 between Fifth Avenue and Stockton Road/SR 108
- ▲ Roadway 32 - SR 49 north of Dodge Street
- ▲ Roadway 33 - SR 49 south of N. Washington Street/Columbia Way
- ▲ Roadway 34 - SR 49 north of N. Washington Street/Columbia Way
- ▲ Roadway 35 - SR 49 east of Parrotts Ferry Road
- ▲ Roadway 69 - Greenley Road between Cabezut Road/Morning Star Road and Delnero Drive
- ▲ Roadway 77 - Tuolumne Road between Mono Way and Lambert Lake Road

However, these improvements may not be feasible due to physical constraints, financial reasons, or jurisdictional control (as these roadway segments and improvements may be outside of the County's direct control and subject to City of Sonora or Caltrans approval and implementation). Furthermore, as part of its analysis prior to including these improvements in the Tuolumne County Countywide Traffic Circulation Improvement Program, the County may determine that the improvements are not desirable in terms of County policies, including those in the General Plan Update. In addition, these mitigation measures may have secondary environmental impacts (growth-inducing impacts, construction impacts related to air quality, noise, temporary closure of roads or pedestrian routes, biological and cultural resources). The environmental impacts associated with these measures is included in the overall program-level analysis of this Recirculated Draft EIR. However, project-specific environmental review would be required pursuant to CEQA for each of these improvements.

Additionally, the following roadway segments would continue to operate at deficient LOS in years 2030 and 2040 after implementation of the associated mitigation measures:

- ▲ Roadway 31 - SR 49 between Stockton Road and Dodge Street
- ▲ Roadway 52 - Mono Way west of Sanguinetti Road
- ▲ Roadway 116 - S. Washington Street between Restano Way and Church Street

Therefore, operational impacts of projected development under the General Plan Update to these roadway segments would be **significant and unavoidable**.

Impact 3.16-2: Impacts to Intersection Operations

Projected development under the General Plan Update would increase traffic volumes at intersections throughout Tuolumne County. Intersection improvements planned in the 2016 RTP are intended to address projected deficiencies intersections within the County. The fiscally constrained roadway improvements planned in the 2016 RTP (Tier 1a, 1b, and 1c) are intended to address projected deficiencies at intersections within the County. However, after the identified improvements are implemented, three intersections could still operate at deficient LOS. Impacts are **potentially significant**.

Projected development under the General Plan Update would contribute to congestion at intersections throughout Tuolumne County. Tier 1a, Tier 1b, and Tier 1c projects in the 2016 RTP and FCEP-CIP include improvements that would be implemented in three stages. The first stage would include all Tier 1a FCEP-CIP projects that are planned to begin construction in the next 6 years. Tier 1b FCEP-CIP projects would be constructed in the next 6 to 15 years by 2030 and Tier 1c FCEP-CIP projects are planned for construction in the next 16 to 25 years by the year 2040.

Improvements, including planned intersection modifications would improve operations at intersections in Tuolumne County. Planned intersection improvements are anticipated to occur through 2040. These improvements would improve the LOS of all but three intersections to acceptable levels by 2030, and improve LOS at all but two intersections to acceptable levels by 2040. See Table 3.16-7 for Peak Hour Delay(s) and LOS for those intersections that would not operate at acceptable LOS in 2030 or 2040. See Appendix D of this EIR for the full Traffic Study.

Table 3.16-7 Intersections with Unacceptable Levels of Service (2030/2040) with Projected Development Under 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	
11	SR 49-SR 108/SR 108 and SR 49 (Stockton Rd)	43.3	E	93.5	F	14.7	B	18.5	C	No in 2030
23	S Washington St/SR 49 (S Washington St) and SR 49 (Stockton Road)	68.6	E	62.5	E	55.6	E	58.1	E	No in 2030 and 2040
24	S Washington St and Church St	34.8	D	54.7	F	26.3	D	36.1	E	No in 2030 and 2040

Source: Wood Rogers 2016. See Appendix D of this EIR for the full Traffic Study.

As shown in Table 3.16-7, the intersections of SR 49-SR 108/SR 108 and SR 49 (Stockton Road); and S. Washington Street/SR 49 (S. Washington Street) and SR 49 (Stockton Road) are projected to operate at unacceptable LOS in 2030 during both the a.m. peak hour and p.m. peak hour. The intersection of S. Washington Street and Church Street is projected to operate below LOS D in 2030 during the PM peak hour. Geometric improvements at SR 108 and SR 49 Stockton Road intersection are included on the 2016 RTP’s list of long-range capital improvement projects as a Tier 1c project. However, these improvements are not expected to be completed until the year 2040.

In 2040, the intersection of S. Washington Street/SR 49 (S. Washington Street) and SR 49 (Stockton Road) are projected to operate at unacceptable LOS during both the a.m. peak hour and p.m. peak hour; and the intersection of S. Washington Street and Church Street is projected to operate below LOS D in 2040 during the PM peak hour.

Implementation Program 4.A.c establishes priorities based on available funding for road improvement projects and sets the criteria for incorporating road improvement projects into the County Road Improvement Program.

The inclusion of Policy 4.A.5 in the General Plan Update would require the consideration of the traffic impacts resulting from development in relation to General Plan growth policies. This policy would require new development to provide mitigation for its fair share of impacts to the County’s transportation system, and the assessment of the needs of street and road users regularly through the land development application review process. Implementation Program 4.A.q would require the evaluation of the impacts of new development on the County’s transportation system and require such development to provide mitigation for its fair share of the impact. New development that is determined by the County to create or exacerbate an identified deficiency in the transportation system will not be approved if a plan and funding program to provide needed roadway improvements have not been approved or if the mitigation provided by the development will not correct the deficiency or if it will create an additional burden on County transportation funds.

Thus, it is the intent of the County to require development to pay its fair-share for impacts to intersection operating conditions caused by planned development in the General Plan Update. However, if the necessary improvements are needed for facilities that the County does not have full jurisdictional control (i.e., Caltrans and City of Sonora intersections), it cannot be assured that improvements will be approved and constructed.

Additionally, due to funding constraints and uncertainty of the timing of implementation of improvements, it cannot be assured that the intersection improvements for which development under the General Plan Update would pay their fair share of, would be constructed within the necessary time frame to improve operating conditions at intersections to acceptable levels.

Therefore, because the three intersections identified in Table 3.16-7 would not meet the LOS D threshold for intersection operations, and because the fair share payments of development under the General Plan Update would not ensure the improvements necessary to improve operating conditions at these intersections to acceptable levels would be implemented, impacts would be **potentially significant**.

Mitigation Measures

Mitigation Measure 3.16-2: Intersection Improvements

As part of its update of the Tuolumne County Countywide Traffic Circulation Improvement Program, the County shall evaluate the following improvements for inclusion in the Program, thus allowing for funding through the Tuolumne County Traffic Impact Mitigation Fee program. The improvements shall be incorporated into the Program if they are considered feasible and consistent with General Plan policies. If further analysis demonstrates that an alternative improvement would be adequate to achieve the target LOS, that alternative improvement shall be incorporated into the Program if feasible and consistent with General Plan policies.

Intersection 11 - Installation of a Traffic Signal or Conversion to a High-T Type Intersection

Improve the intersection of SR 49-SR 108/SR 108 and SR 49 (Stockton Road) by year 2030 to a High-T type intersection or install a traffic signal at the intersection.

Intersection 23 – Construct a Southbound Right-Turn Pocket

A southbound right-turn pocket shall be constructed at the intersection of S. Washington Street/SR 49 (S. Washington Street) and SR 49 (Stockton Road) to improve conditions to an acceptable LOS in the year 2040, with some movements operating at a LOS F. If this is not feasible due to the existing right-of-way, alternative modes of transportation shall be improved along this roadway segment, such as transit service, bicycle and pedestrian infrastructure.

If the aforementioned roadway improvement is deemed infeasible, or if further analysis demonstrates it will not result in acceptable operating conditions at the applicable intersection, the following improvements shall be incorporated:

- ▲ Construct the North-South Connector Phase 2 (Fir Drive Extension), which would extend Fir Drive from Mono Way to the Greenley Road Extension, intersecting with Cabezut Road and Lyons Bald Mountain Road in between, may reduce traffic on this segment of SR 49 by up to 5%.
- ▲ Construct the Western Bypass that would extend from SR 108/49 (south of Jamestown) to Rawhide Road. The Western Bypass is projected to divert traffic away from downtown Sonora and may reduce traffic at this intersection.
- ▲ Improve alternative modes of transportation along this roadway segment, such as transit service, bicycle and pedestrian infrastructure.

Intersection 24 – Installation of a Traffic Signal and Restricting Right-Turn Movements

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.

Significance after Mitigation

With implementation of Mitigation Measure 3.16-2, SR 49-SR 108/SR 108 and SR 49 (Stockton Road) (Intersection 11) would be improved to LOS C in the years 2030 and 2040. South Washington Street and Church Street (Intersection 24) would be improved to LOS A or LOS C in the years 2030 and 2040, depending on which feasible improvement is implemented. In addition, with implementation of Mitigation Measure 3.16-2, the intersection South Washington Street/SR 49 (South Washington Street) and SR 49

(Stockton Road) (Intersection 23) would continue to operate at an unacceptable LOS in the years of 2030 and 2040.

However, this mitigation measure 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, this mitigation measure may have secondary environmental impacts (construction impacts related to air quality, noise, temporary closure of roads or pedestrian routes). The environmental impacts associated with this measure are included in the overall program-level analysis of this Recirculated Draft EIR. However, project-specific environmental review would be required pursuant to CEQA for each of these improvements.

Therefore, impacts of projected development under the General Plan Update to intersection operations would be **significant and unavoidable**.

Impact 3.16-3: Hazards Due to a Design Feature or Incompatible Uses, including Agritourism Uses

The implementation of General Plan Update policies relating to traffic calming and enhancing bicycle and pedestrian facilities would help improve safety of the overall circulation network within Tuolumne County. Additionally, any future circulation improvements associated with projected development under the General Plan Update would be subject to all applicable County and Caltrans design and safety standards. Additionally, the General Plan Update contains policies related to the compatibility of future development with existing airport land use compatibility and master plans; thus, ensuring incompatible uses in the vicinity of the existing airports would not occur. However, agritourism-related special events that would be allowed under the proposed text changes to the County Ordinance Code could result in temporary traffic hazards. This would be considered a **potentially significant** impact.

The General Plan Update is intended to encourage growth in and near the identified communities, such as the communities of Jamestown, Columbia, East Sonora, and Tuolumne, ultimately increasing density and improving circulation and multimodal connections. These communities are generally located along a select number of arterials, major collectors, and transit corridors including SR 49 and SR 108. The General Plan Update encourages the decrease in auto dependency and increase in pedestrian, bicycle, and transit activity. This increases the potential hazards for pedestrians and bicyclists in the County. However, the General Plan Update includes a range of policies and implementation programs that are specifically intended to increase pedestrian and bicyclist safety and walkability throughout the County. These policies include Policy 4.B.1 which strives to incorporate alternative transportation modes into system design; and Policy 4.B.2 and Policy 4.B.3 which focus on expanding and improving safety, connectivity and accessibility of pedestrian and bicycle facilities, respectively. Additionally, Policy 4.B.4 incorporates public transit, bicycle and pedestrian modes in County transportation planning and requires new development to provide adequate pedestrian and bikeway facilities at suitable locations.

In addition to the impact of the General Plan Update on design, connectivity, and safety of bicycle, pedestrian, and transit discussed above, all future roadway improvements associated with projected development under the General Plan Update would be constructed in accordance with applicable County and Caltrans design and safety standards. Additionally, the General Plan Update includes a range of policies and implementation programs that are specifically intended to increase safety on streets and highways throughout the County. These policies include Policy 4.A.1 which would 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. Under this policy, Implementation Program 4.A.d would prioritize safety related road improvement projects needed on streets and highways which experience an unusual number of motor vehicle traffic accidents, design necessary improvements and implement necessary improvements in a timely manner to the greatest extent possible. Policy 4.A.2 of the General Plan Update emphasizes that dedication, improvement, and construction of roadways be done so according to design and access

standards, specifically, those in the General Plan Update, County Ordinance Code, and the Countywide Traffic Circulation Improvement Program.

Policy 4.E.1 supports the development of the Columbia and Pine Mountain Lake (PML) Airports in accordance with the Tuolumne County Airport Land Use Compatibility Plan and Airport Master Plans; thus, protecting airports from incompatible features. Policy 4.F.1 plans for future airport operations, considering possible expansion of airport operations, services and the proximity of adjacent land uses. Implementation Program 4.F.a ensures that the Columbia Airport Master Plan will be implemented and periodically updated in order to update operational and safety procedures, reflect State and Federal mandates, better utilize Airport property and recommend land use compatibility standards for land surrounding the Airport.

It is possible that the proposed policy and code changes to facilitate increased agritourism could result in increased visitation in the vicinity of a specific agritourism use. This could result in increased levels of traffic. Traffic generated by agritourism-related events would be expected to primarily occur outside weekday peak traffic hours and therefore it is not anticipated that it will substantially affect the local transportation facilities' peak hour levels of service. Therefore, typical increases in traffic associated with these agritourism venues would be minor and would generally be consistent with the overall projected traffic operations of the County. Additionally, agencies with the responsibility for roadway design and operation, including Tuolumne County; the City of Sonora; and Caltrans, all have adopted roadway design standards that must be adhered to. These standards address a variety of roadway elements, including safety and hazards. Therefore, existing transportation infrastructure used to access potential agritourism venues would have been constructed in compliance with all applicable design standards detailed above. However, proposed Ordinance Code changes allow for a limited number of special events per year on agricultural property. The maximum number of attendees at such events would be 500 (limited to twice per year). Although these events would also typically occur outside of weekday peak hours, larger events could result in heavier traffic volume on local (often rural) roadways where access may be limited, and the roads may not be designed to accommodate such bursts of heavy traffic. This could result in a traffic hazard and is considered a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.16-3: Revise proposed Title 17 text to require traffic mitigation plans.

The proposed text changes to Title 17 of the Ordinance Code shall be revised as follows:

17.52.220 Commercial events on agricultural land

Commercial events are the use of land and/or facilities for meetings, gatherings and events, including, but not limited to, weddings, parties and similar uses, for which a fee is charged.

- A. An annual ministerial permit may be acquired from the County to allow ~~Up to~~ 40 commercial events ~~may to~~ be held per calendar year for up to 300 guests on a parcel zoned AE-37, AE-80 or AE-160 subject to the standards in paragraph C.
- B. An annual ministerial permit may be acquired from the County to allow ~~Up to~~ two commercial events ~~may to~~ be held per calendar year for up to 500 guests on a parcel zoned AE-37, AE-80 or AE-160 subject to the standards in paragraph C.
- C. Standards for commercial events:
 1. The event venue shall be located on a parcel that complies with the cul-de-sac road standards specified in Section 11.12.040 of this code.
 2. The event venue, excluding parking areas, shall be located at least 200 feet from the boundary of the nearest parcel zoned R or RE.

3. The event parking areas shall be located at least 20 feet from the boundary of any parcel zoned R or RE.
4. Prior to issuance of the annual special event permit, a traffic management plan (TMP) shall be submitted and approved by the Community Resources Agency for events exceeding 100 guests. The TMP shall be prepared by a qualified transportation engineer/consultant and shall include appropriate techniques to provide safe ingress and egress from event facilities without resulting in substantial congestion of roadways, or otherwise cause traffic-related hazards. Such techniques may include (but may not be limited to):
 - ▲ Temporary caution and directional signage;
 - ▲ Clearly defined points of ingress/egress;
 - ▲ Cones or other clear markers placed to help direct vehicle flow define parking areas and driveways; and
 - ▲ Flag persons to help direct vehicle flow and minimize congestion.

[subsequent items to be renumbered]

Significance after Mitigation

With implementation of Mitigation Measure 3.16-3, potential traffic hazards associated with agritourism-related commercial events would be minimized by requiring a traffic management plan to be submitted and approved by the County for large special events on agricultural property. The plan would be prepared by a transportation professional and would include techniques to reduce potential traffic hazards. This would reduce the impact to a **less-than-significant** level.

Impact 3.16-4: Impacts to Alternative Transportation

Implementation of the General Plan Update and the associated circulation improvements and policies is expected to improve the availability of, and access to bicycle and pedestrian facilities. Additionally, while the County's population would increase as projected development under the General Plan Update occurs, the policies and planned improvements under the General Plan Update would improve transit options within Tuolumne County, including efficiency and capacity of the transit system. Therefore, impacts related to alternative transportation would be **less than significant**.

Projected development under the General Plan Update through 2040 would result in a net increase of 5,159 dwelling units, 938,000 square feet of commercial development, and 196,000 square feet of industrial development above existing conditions (year 2015). It is estimated that the population within Tuolumne County will increase by 8,906 to a population of 63,243 residents in the year 2040. The General Plan Update does not drive growth to that level; rather it prepares the County to accommodate the level of growth that is already projected. The General Plan Update is intended to encourage growth in and near the identified communities, such as the communities of Jamestown, Columbia, East Sonora, and Tuolumne, ultimately increasing density and improving circulation and multimodal connections. The Transportation Element of the General Plan Update emphasizes the creation of a coordinated transportation and pedestrian system supported by the policies and implementation programs contained within the General Plan Update. Additionally, the *Tuolumne County Bikeways and Trails Plan* has prioritized bicycle and trail projects based on the perceived needs of the County. The General Plan Update provides policies and implementation programs that include, but are not limited to, developing routes to schools (Implementation Program 4.B.v), linking bicycle and pedestrian facilities (Implementation Program 4.B.r and Policy 4.B.5), improving pedestrian safety (Implementation Program 4.B.g and Policy 4.B.3), and balancing multimodal transportation in roadway improvements (Implementation Program 4.A.f). Additionally, the General Plan Update includes a range of policies that aim to enhance alternative transportation in Tuolumne County. These policies include,

but are not limited to, Policy 4.B.1 which would incorporate alternative transportation modes into system design; Policy 4.B.2 and Policy 4.B.3 which would expand and improve connectivity and accessibility of pedestrian and bicycle facilities, respectively; and Policy 4.B.4 which would incorporate public transit, bicycle and pedestrian modes in County transportation planning and require new development to provide adequate pedestrian and bikeway facilities at suitable locations.

The General Plan Update land use diagram, its policies and implementation programs, and the five community plans would promote development in the identified communities 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 General Plan Update plans for each identified community in Tuolumne County to contain a well-defined, cohesive, and compact community. 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 improvements and policies included in the General Plan Update is expected to address the availability of sidewalks, bike paths, and transit over time. By making these transportation alternatives more attractive, General Plan Update is expected to foster a gradual increase of alternative transportation use. While the County's population would increase throughout the 2040 planning horizon, the General Plan Update would improve alternative transit options within Tuolumne County, including efficiency and capacity of the transit system.

Because overall population growth is projected to be minor (0.6 percent) through 2040, substantial additional demand would not be placed on existing alternative transportation facilities or operations. In addition, the policies and implementation programs included in the General Plan Update are intended to improve alternative transportation facilities and operations; therefore, impacts related to alternative transportation would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.16-5: Impacts to Emergency Access

Projected development under the General Plan Update would be subject to review by the County and responsible emergency service agencies; thus, ensuring any future development under the General Plan Update would be designed to meet all County emergency access and design standards. Therefore, adequate emergency access would be provided and impacts to emergency access would be **less than significant**.

Projected development under 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 Chapter 15.20, *Fire Safety Standards*, and Chapter 11.12, *Basic Road Design and Construction Standards*. Compliance with existing requirements would ensure that adequate emergency access would be provided for by all projected development under the General Plan Update. Additionally, policies in the General Plan Update would further improve emergency access. These policies include, but are not limited to, Policy 4.C.7 which would support the use of public transit during emergency evacuations by coordinating efforts through the Emergency Operations Plan; Policy 4.E.3 which would emphasize support of the Tuolumne County Office of Emergency Services in developing a workable plan which will create a County-wide system of emergency heliports; and the specific Implementation Program 4.A.o which encourages cooperation between the TCTC, the Tuolumne County Fire Department and the Tuolumne County Sheriff's Office regarding transportation issues, and requiring Fire Department and Sheriff's Office comments regarding emergency response corridors, evacuation routes and needed improvements, such as helispots, to be considered when revising the list of Circulation Improvement Projects. Additionally, Implementation Program 4.A.c states that roadway improvement projects in the County Road Improvement Program would need to demonstrate that capacity and travel speed would be improved with the project, particularly on roads carrying through traffic, and including, but not limited to,

interchange improvements, additional road lanes and/or widths, turn lanes, signalization and bridge improvements that help fire, police and other emergency services achieve acceptable response times.

Because development under the General Plan Update would be subject to applicable County standards for emergency access, and because the General Plan Update includes policies and implementation programs to facilitate appropriate emergency access and response, impacts related to emergency access as a result of projected development under the General Plan Update would be **less than significant**.

Mitigation Measures

No mitigation is required.

3.17 UTILITIES AND SERVICE SYSTEMS

This section evaluates potential impacts of projected development under the General Plan Update to water supply, wastewater service, and solid waste service. Section 3.10, “Hydrology and Water Quality,” addresses potential impacts of projected development under the General Plan Update related to storm water runoff, flooding, and surface water quality.

Comments received on the Draft EIR include concerns related to the availability and supply of water, the capacity for sewer service to development, zoning compatibility with utilities, and the general effects of development on existing infrastructure. In addition, the Tuolumne Utilities District and the San Francisco Public Utilities Commission (SFPUC) provided suggested edits to the information presented in the Draft EIR. Responses to comments and additional information have been incorporated into the following discussion, as applicable.

3.17.1 Environmental Setting

WATER SUPPLY

Development in Tuolumne County receives water primarily from public utilities such as Tuolumne Utilities District (TUD) and Groveland Community Services District (GCSD), and also from local groundwater. The water supply varies from year to year based on the amount of rain and snowfall in the Sierra Nevada Mountains. The County, along with much of the state, recently experienced a multi-year drought. Inadequate rainfall and snowpack reduced the runoff to the reservoirs supplying most of the water in the County. The reserved pools of water in those systems were not of adequate size to withstand a sustained drought of multiple years without either adding to the supply or rationing the water. On February 4, 2014 the Tuolumne County Board of Supervisors declared a local state of emergency because of drought conditions. This was common throughout California and not unique to Tuolumne County. The Board of Supervisors terminated the local state of emergency on August 1, 2017.

In total, approximately 59,000 residents would be served with water provided by water supply districts in 2040, with the remaining approximately 4,000 residents served by private wells. The data concerning water supply and supply reliability differs from district to district and consistent data is not available. However, in aggregate, the information is generally sufficient to draw important conclusions regarding supply and demand for water during the General Plan Update horizon. This is described below.

Tuolumne Utilities District

The public water system providing service to most residents in Tuolumne County is operated by TUD. Actually, as an assemblage of numerous large and smaller systems under TUD ownership and operation, TUD provides water either directly or indirectly to most of the developed portions of Tuolumne County. TUD currently serves (year 2015) about 30,800 residents. In 2040, TUD anticipates serving about 51,700 residents, which represents about 82 percent of the County’s total projected population of 63,243 residents, including the City of Sonora (TUD 2016a. TUD’s service area occupies approximately the northerly two-thirds of Tuolumne County bounded on the west by the North Fork and Main Stem of the Stanislaus River along the Tuolumne County and Calaveras County boundary, on the north by Alpine County, on the east by Mono County and Yosemite National Park, on the south by the Tuolumne River, and on the southwest by Stanislaus County. This service area does not include the communities of Groveland and Big Oak Flat, which (as described below) receive water from GCSD, or Lake Don Pedro, which receives water from the Lake Don Pedro Community Services District.

TUD maintains a Treated Water System, also referred to as a “water distribution system,” which includes TUD’s 14 surface water treatment plants, 25 active water wells, and the treated water customer service

meters. The Treated Water System is primarily characterized by residential land use, with some commercial and industrial land uses. The TUD water distribution systems do not follow census tract boundaries, political boundaries, watersheds, or community boundaries. Rather the boundaries of the water distribution systems are irregular and represent those specific geographic areas which are served by one or more TUD municipal water supply treated water sources. TUD operates and maintains 17 separate distribution systems that together form the Treated Water System (TUD 2016a).

Most of TUD’s water supply consists of surface water that originates as rainfall and runoff from snowpack in the Sierra Nevada Mountains (TUD 2016a). Snowmelt runs through the South Fork Stanislaus River, filling PG&E’s Pinecrest and Lyons reservoirs; while TUD has no independent water rights, it obtains water from these reservoirs (TUD 2016a). The remaining 3 percent of water supply is met with groundwater from 25 wells either as a primary source or a backup source. However, the groundwater supply is limited because of the hard, impermeable bedrock that covers most of Tuolumne County (TUD 2016a). The California Department of Water Resources’ Bulletin 118, which provides a detailed description of groundwater basins in California, does not identify any groundwater basins in the County. Table 3.17-1 shows current (2015) and planned water supplies in TUD’s service area. Approximately one-third to two-thirds of the treated potable water is produced by TUD’s largest treatment plant, in Sonora.

Table 3.17-1 Water Supply in TUD Service Area

Category	2015 Water Supply (AFY)	2040 Water Supply (AFY)
Water from PG&E	24,500	24,500
Groundwater	1,465	1,465
Recycled Water	1,627	2,316
Total	27,593	28,282

Notes: AFY = acre-feet per year
Sources: TUD 2016a

Table 3.17-2 shows current (2015 for most uses; 2010 for agriculture irrigation) water demand and projected water demand for the year 2040 in TUD’s service area. TUD’s 2015 Urban Water Management Plan includes a projection for their service area population in 2040 that is different and separate from the projected population used by this EIR. Total demand for treated water in TUD’s service area is approximately 3,903 acre-feet per year in 2015 and is projected to reach 8,857 acre-feet per year in 2040, including unaccounted-for system losses and wholesale deliveries (TUD 2016). Overall water demand (including raw water) in TUD’s service area is currently 13,212 acre-feet per year and projected to be 21,182 acre-feet per year in 2040. Average treated water use factors for the period from 2000 through 2013 were used in forecasting future demand (water use in recent years [2014–2015] was considered atypical due to mandatory conservation imposed by the Governor’s drought emergency declarations).

Table 3.17-2 Water Demand in TUD Service Area

Category	2015 Water Demand (AFY)	2040 Water Demand (AFY)
Treated Water		
Single-family residences	2,116	5,535
Multi-family residences	245	582
Commercial	495	661
Institutional/Governmental	193	607
Landscape	44	106
Industrial	1	4
Subtotal	3,094	7,495

Table 3.17-2 Water Demand in TUD Service Area

Category	2015 Water Demand (AFY)	2040 Water Demand (AFY)
Additional treated water uses and losses	556	1,048
Wholesale deliveries	253	314
Raw and Recycled Water		
Agriculture irrigation as raw water	2,366 ¹	3,484
Agriculture irrigation as recycled water	1,850 ¹	2,316
Wholesale deliveries	373	665
Additional raw water uses and losses	4,720	5,861
Total	13,212	21,182

Notes: AFY = acre-feet per year

¹. 2010 demand. 2015 demand not reported by TUD for this use.

Sources: TUD 2016a

TUD's 2015 Urban Water Management Plan (UWMP) summarizes the results of modeling to forecast TUD's surface water availability under a normal hydrologic year, the single driest hydrologic year, and a period of three consecutive dry years. Based on minimum targeted storage levels of 1,200 acre-feet at Lyons Reservoir and 3,500 acre-feet at Pinecrest Lake, TUD estimates the available surface water supply during multiple-dry water years to be 27,549 acre-feet per year (AFY). Even with water demand projected to increase to 21,182 AFY in the year 2040, TUD estimates that the total surface water supply would exceed demand by 6,367 AFY during multiple dry years. Demand is projected to be roughly $\frac{3}{4}$ of multiple dry-year supply.

Chapter 8 of the 2015 UWMP describes TUD's water shortage contingency plan. As shown in Table 3.17-3, TUD has grouped the actions to be taken during a water shortage into three phases that are based on the water supply conditions. This three-phase rationing plan includes both voluntary and mandatory rationing, depending on the causes, severity, and anticipated durations of the water supply shortage.

Table 3.17-3 Water Supply Shortage Stages and Conditions

Phase No.	Water Shortage Supply Conditions	Shortage Percent
I	Greater than 50% of normal forecasted flow of the Bulletin 120 for the Stanislaus River	0
II	Less than 50% of normal forecasted flow of the Bulletin 120 for the Stanislaus River	15
III	Less than 30% of normal forecasted flow of the Bulletin 120 for the Stanislaus River ¹	30
IV	Emergency – Catastrophic water restriction	50

¹. Per Regulation 12, TUD may implement Phase III "whenever it determines that the amount of available water supply may be less than the projected water system demand."

Source: TUD 2016a

Groveland Community Services District

For the southern portion of Tuolumne County, GCSO provides potable water to approximately 3,147 full-time residents in the communities of Groveland, Big Oak Flat, and Pine Mountain Lake, as well as seasonal visitors (GCSO 2016). The water is withdrawn from the Hetch Hetchy Mountain Tunnel, under a long-term contract with SFPUC. GCSO's water supply and distribution system includes three water treatment plants, five storage reservoirs, and approximately 70 miles of distribution piping. GCSO also owns and operates a regional wastewater collection, treatment, and regional recycled water system, which provides sewer service

to 899 connections within GCSD's service area (GCSD 2016). The raw water is treated and distributed to approximately 3,500 customers.

GCSD has a contract service area agreement with SFPUC until 2050. GCSD and SFPUC estimate that sufficient quantities of water will be available from the Hetch Hetchy system to meet projected demands over the next 20 years, assuming a projected growth rate of 0.25 percent per year. The GCSD UWMP assumes a 2040 service population of 3,351. Table 3.17-4 shows that GCSD has adequate supply to meet projected demand in a multiple dry-year scenario through the year 2040. GCSD assumes, conservatively, that surface water supplies from the SFPUC would be reduced by 25 percent during the second and third dry years. To offset reduced surface water supplies and to meet water demands during this period, the SFPUC plans to identify 10 mgd of groundwater, recycled water, and conservation programs to reduce the need for rationing when demand levels increase in the future. This would decrease the amount of conservation required in a drought (GCSD 2016).

Table 3.17-4 Supply and Demand Comparison in GCSD Service Area – Multiple Dry-Year Scenario

		2020	2025	2030	2035	2040
First Year Supply	Supply	118 MGD	119 MGD	120 MGD	121 MGD	122 MGD
	Demand	118 MGD	119 MGD	120 MGD	121 MGD	122 MGD
	Difference	0	0	0	0	0
Second Year Supply	Supply	105 MGD	106 MGD	106 MGD	107 MGD	108 MGD
	Demand	105 MGD	106 MGD	106 MGD	107 MGD	108 MGD
	Difference	0	0	0	0	0
Third Year Supply	Supply	92 MGD	92 MGD	93 MGD	94 MGD	95 MGD
	Demand	92 MGD	92 MGD	93 MGD	94 MGD	95 MGD
	Difference	0	0	0	0	0

Note: This analysis does not reflect water conservation over a multiple dry-year scenario and does not assume any reduction in demand due to conservations (or that supply is reduced due to conservation or rationing). As such, water demand for multiple dry years may be overstated.

Source: GCSD 2015 UWMP (Table 7-4), 2016a; *Assuming a population of 3,351 residents in 2040*

Other Water Suppliers

Two other primary water suppliers in Tuolumne County are the Twain Harte Community Services District (CSD) and the Lake Don Pedro CSD. The Twain Harte CSD, a water supplier for an approximately 3-square-mile area that encompasses the community of Twain Harte, receives water from TUD and groundwater. Twain Harte CSD provides services an approximate population of 2,500 residents in Twain Harte's downtown residential and commercial zones (Twain Harte CSD 2018). Reliability data was not readily available, but given that a portion of the supply originates with the TUD, which does have reliable supply, it can be inferred that the District is well-suited to accommodate its population base in the future.

The Lake Don Pedro CSD encompasses portions of La Grange and Coulterville, and spans the Mariposa and Tuolumne County line. Water is pumped from Lake McClure and blended with ground water before treating it and pumping it into the distribution system, which has over 1,400 service connections (Lake Don Pedro CSD 2018). Note that the CSD reports its service in terms of connections rather than population and it can conservatively be assumed that one connection serves at least one (and likely more) person. The Lake Don Pedro CSD installed three additional wells for Lake McClure to provide emergency water supply during the drought of 2013-2016 when water levels dropped below 560 ASL and these wells were able to supply 100 percent of the needs of the community it serves. The nonemergency water wells consist of two submersible pumps to provide a portion of the needed Lake Don Pedro CSD water supply (Lake Don Pedro CSD 2017).

Small Water Systems and Wells

Groundwater is the only water supply source for many of the small water systems in Tuolumne County, particularly for rural residential development in outlying areas (TUD 2013). The majority of small water systems that are regulated by the State Water Quality Control Board rely exclusively on individual small capacity wells. Rather than large groundwater basins, most of the areas served by private wells are underlain by fractured rock. Fractured rock provides inconsistent groundwater conditions; some parcels are underlain by small pools of groundwater that are reliable, and others tap into less reliable subsurface rills and streamlets. Because of weather fluctuations and the nature of fractured rock, wells can prove unreliable during drought periods and difficult to establish in some parts of the County. The Tuolumne-Stanislaus Integrated Regional Water Management Plan determined that existing data are insufficient to quantify the total available sustainable groundwater supply (TUD 2013). This is not atypical in fractured rock environments such as those that occur throughout the Sierra foothills.

STORM WATER

Surface runoff of water during rainfall and snow events is defined as storm water. If surface runoff overwhelms the capacity of storm water conveyance systems, flooding can result. Because of the elevation gradient and existence of multiple upper watershed reservoirs severe flooding has not historically been a major concern in Tuolumne County (TUD 2013). However, management and containment of localized flooding of creeks and tributaries, particularly in developed areas, and along some local roadways has been a challenge and many storm water conveyance systems in Tuolumne County are in need of improvements to reduce the potential for catastrophic flooding. The Tuolumne County Community Resources Agency has identified areas of Sullivan, Sonora, Mormon, Woods, and Curtis Creeks to be problematic. In addition, some more rural areas with County or ranch roads have low water fords which flood and prevent access at times.

WASTEWATER

Five wastewater collection and treatment systems operate in Tuolumne County: TUD, GCSD, Twain Harte CSD, Jamestown Sanitary District, and the Tuolumne Sanitary District. Residents outside of these districts rely on individual septic tank systems to treat household wastewater.

Tuolumne Utilities District

TUD provides sewer service to 6,024 residential and commercial accounts. In addition, TUD provides regional sewer services to subscriber agencies, such as the Jamestown Sanitary District (reclamation) and the Twain Harte CSD (treatment and reclamation). An estimated 24,000 people benefit from TUD's wastewater collection, treatment, or reclamation service. In addition, TUD processes septage originating from septic tanks in areas of the County are not connected to the sewer system (TUD 2016b).

The largest wastewater system in Tuolumne County is TUD's Sonora Regional Wastewater Treatment Plant (RWWTP) in the City of Sonora, which receives flow from both the TUD and Twain Harte CSD wastewater collection systems (TUD 2013). The Sonora RWWTP is a conventional secondary wastewater treatment plant and has a design capacity of 2.6 million gallons per day (mgd). Treated effluent is piped to the 1,616 acre-foot Quartz Reservoir and is distributed to agricultural customers that use the treated wastewater for growing feed crops. TUD does not discharge treated wastewater to any state receiving waters (TUD 2016c).

Groveland Community Services District

GCSD operates a wastewater treatment plant that serves approximately 1,500 customers with a capacity of 250,000 gallons per day (gpd). The plant provides primary and secondary treatment. Treated wastewater is disposed of through evaporation ponds, as irrigation water at the Pine Mountain Lake Golf Course, or through 14 acres of spray fields (TUD 2013).

Jamestown Sanitary District

The Jamestown Sanitary District operates a wastewater treatment plant that serves approximately 1,250 customers with a capacity of 280,000 gpd. The plant provides primary and secondary treatment of wastewater. Treated wastewater is stored at Quartz Reservoir and used as agricultural irrigation (TUD 2013).

Twain Harte Community Service District

The Twain Harte CSD serves approximately 1,500 customers and sends wastewater to TUD's RWWTP for secondary treatment (TUD 2013).

Tuolumne Sanitary District

The Tuolumne Sanitary District operates spray evaporation ponds with a capacity of 360,000 gpd to dispose of wastewater from approximately 850 customers (TUD 2013).

Individual, on-site septic systems are also very common in Tuolumne County. Many residents with community water service connections do not have wastewater connections (TUD 2013).

SOLID WASTE

The Tuolumne County Solid Waste Division oversees the collection, transport, and disposal of solid waste within Tuolumne County, and is responsible for ensuring that solid waste disposal services meet state and federal mandates for integrated waste management. Curbside collection is provided by three franchise haulers: Cal Sierra Disposal, Inc./Waste Management, Moore Bros Scavenger Co., Inc., and Burns Refuse Service, Inc. Cal Sierra Disposal, Inc. operates the Cal Sierra Transfer Station (in East Sonora) and Pinecrest Transfer Station under a franchise agreement with the County. Cal Sierra also operates a recycling center and Earth Resources Facility in Sonora. Moore Bros Scavenger Co., Inc., operates the transfer station in Groveland-Big Oak Flat.

The County has four franchise areas for solid waste haulers. Cal Sierra serves franchise areas 1 and 2 in unincorporated Tuolumne County along the State Route 108 corridor from the western County line to Pinecrest, including the communities of East Sonora, Jamestown, Columbia, and Twain Harte. Cal Sierra also services the City of Sonora under a separate franchise agreement with the City. Burns Refuse Service, Inc. provides solid waste collection service for franchise area 3, which includes the community of Tuolumne, Standard, Curtis Creek, Soulsbyville Road up to Soulsbyville Elementary School, Wards Ferry Road, and Old Wards Ferry Road. Moore Bros Scavenger Co., Inc. provides solid waste collection service for franchise area 4 in southern Tuolumne County, including Groveland, Big Oak Flats, Moccasin, and areas upcountry along the Highway 120 corridor.

Collected solid waste is processed at the transfer stations and disposed of at the Highway 59 Disposal Site landfill, which is operated by the Merced County Regional Waste Management Authority. The maximum permitted capacity of the landfill is 30,012,352 cubic yards, and the maximum permitted throughput is 1,500 tons per day. The remaining capacity (as of September 2005) is 28,025,334 cubic yards (CalRecycle 2018a). In 2016, the annual per capita disposal rate in unincorporated Tuolumne County was 3.8 pound per day (PPD) per resident and 16.9 PPD per employee (CalRecycle 2018b).

3.17.2 Regulatory Setting

FEDERAL

There are no federal policies or regulations applicable to the evaluation of utilities.

STATE

California Water Conservation Act

SBx7-7 was enacted in November 2009 and requires each urban water supplier to select one of four water conservation targets contained in California Water Code Section 10608.20 with the statewide goal of achieving a 20 percent reduction in urban per capita water use by 2020. Under SBx7-7, urban retail water suppliers (in this case, TUD), are required to develop water use targets and submit a water management plan to the California Department of Water Resources (DWR) by July 2011. The plan must include the baseline daily per capita water use, water use target, interim water use target, and compliance daily per capita water use (TUD has incorporated this information into its 2015 UWMP). In addition, the state will make incremental progress towards this goal by reducing per capita water use by at least 10 percent by December 31, 2015. Tuolumne County exceeded this goal in 2015.

Urban Water Management Act

The California Urban Water Management Planning Act of 1983 requires that each urban water supplier, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, shall prepare, update and adopt its urban water management plan at least once every 5 years on or before December 31, in years ending in 5 and 0. The plan describes and evaluates sources of water supply, including groundwater; projected water needs; conservation; implementation strategy and schedule. It is a tool that generally guides the actions of water management agencies and provides managers and the public with a broad perspective on a number of water supply issues. TUD, the major water supplier for the County, last prepared an UWMP in 2015.

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989, Public Resources Code Section 40000 et seq., requires every city and county in the state to prepare a Source Reduction and Recycling Element to its Integrated Waste Management Plan that identifies how each jurisdiction will meet the mandatory state waste diversion goals of 25 percent by 1995 and 50 percent by 2000. The purpose of AB 939 is to “reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible.” The term “integrated waste management” refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. The Act has established a waste management hierarchy, as follows:

- ▲ Source Reduction;
- ▲ Recycling;
- ▲ Composting;
- ▲ Transformation; and
- ▲ Disposal.

LOCAL

Tuolumne County General Plan

The 1996 Tuolumne County General Plan provides the main regulatory framework for ensuring that adequate water supply, wastewater service, and solid waste services are maintained. The General Plan Update would supersede the 1996 General Plan; therefore, the discussion of the General Plan in the context of this section focuses on the General Plan Update. Goals and policies contained within the Water Supply Element and the Utilities Element guide the provision of services within the County. Specific General Plan Update policies related to water, wastewater, storm water, and solid waste are identified below under Section 3.17.3, “Impact Analysis.”

Integrated Regional Water Management Plan

The Integrated Regional Water Management Plan defines a vision for water resources management in the Tuolumne-Stanislaus Region and highlights important actions needed to help accomplish that vision through the year 2035. The plan provides a framework within which to collaboratively address the many major water-related challenges and conflicts within the region. These issues include water quality, local water supply

reliability, integration of water and land use management, resource stewardship, and ecosystem protection. The array of goals, objectives, selected resource management strategies, and prioritized projects of this plan represent a collective view of how to improve integrated water management throughout the region.

Tuolumne County Water Quality Plan

The 2007 Tuolumne County Water Quality Plan is a comprehensive program to address a wide array of water quality concerns in the County. The plan focuses on surface water quality and the factors affecting it, as well as mechanisms for maintaining and improving it. The Water Quality Plan primarily functions as a roadmap for strategies that will improve water quality in the County by identifying specific programs and opportunities for water quality improvement that the County can implement.

Tuolumne County Integrated Waste Management Plan

The Tuolumne County Integrated Waste Management Plan was adopted to provide for an integrated solid waste management system that preserves the public health, safety, welfare, convenience and necessity. This was adopted to replace the existing permit system for solid waste collection.

Tuolumne Utilities District's Wastewater Discharge Ordinance

TUD's Wastewater Discharge Ordinance sets uniform requirements for discharges into the wastewater collection and treatment system. It enables TUD to comply with administrative provisions of the Clean Water Grant Regulations, the water quality requirements set by the Regional Water Quality Control Board and applicable effluent limitations, national standards of performance, toxic and pretreatment effluent standards, and any other discharge criteria which are required or authorized by State or Federal law. The ordinance regulates the quality and quantity of wastewater discharged into the systems. This ordinance also provides for the setting of user charges and fees for the equitable distribution of cost of all users, and the issuance of permits to certain users.

3.17.3 Impact Analysis

METHODS OF ANALYSIS

The General Plan Update is a policy document that would guide development and conservation of land throughout the County. Adoption of the General Plan Update would not result in any changes to existing conditions; however, the policies could allow for or encourage future activities that may result in increased demand for utilities infrastructure, including water, wastewater, storm water, and solid waste facilities. Significant impacts could result from the expansion of existing facilities or development of new facilities to meet increased demand where the construction of these facilities would have effects on the environment. Impacts are evaluated assuming projected development under the General Plan Update.

This analysis assumes a level of growth consistent with the Tuolumne County Transportation Council County-wide population projection of 63,243 residents in 2040. As described in Chapter 2, "Project Description," based on current growth trends and the proposed land use diagram and zoning, it is assumed that the portion of this growth that would occur in the unincorporated County area would be focused in the identified communities. Evaluation of potential water, wastewater, storm water, and solid waste impacts were based upon a review of the General Plan Update policies described below.

THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the State CEQA Guidelines, projected development under the General Plan Update would have a significant impact with respect to water provision, wastewater treatment, storm water, and solid waste disposal if it would:

- ▲ exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;

- ▲ require or result in the construction of new water or wastewater facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- ▲ require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- ▲ fail to have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements;
- ▲ result in a determination by the wastewater treatment provider that it does not have adequate capacity to serve projected demand in addition to existing commitments;
- ▲ result in not being served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- ▲ fail to comply with federal, state, and local statutes and regulations related to solid waste.

GENERAL PLAN UPDATE POLICIES

The following policies and implementation programs from the General Plan Update are applicable to the evaluation of effects related to utilities:

Community Development and Design Element

- ▲ **Policy 1.A.13:** Encourage the extension and upgrading of services to Disadvantaged Legacy Communities as identified in the General Plan Technical Background Report.
 - **Implementation Program 1.A.m** - Promote the extension of public water, sewer, stormwater drainage and structural fire protection services to identified Disadvantaged Legacy Communities, where feasible, and identify funding mechanisms that could make the extension of services and facilities to these communities financially feasible.
- ▲ **Policy 1.F.6:** Continue to require development on land designated Neighborhood Commercial, General Commercial or Heavy Commercial to be served with public water and sewer.

Water Supply Element

- ▲ **Policy 14.A.1:** Support the pursuit and acquisition of County Area of Origin Water Rights and other water rights to ensure adequate and stable water supplies.
 - **Implementation Program 14.A.a:** Evaluate and consider pursuing senior water rights. Tuolumne County supports Area of Origin Water Rights, the existing water right priority system and the authority to make water management decisions locally to meet the County's current and future needs, thereby protecting Tuolumne County's communities, economy and environment.
- ▲ **Policy 14.A.2:** Support the efforts of local water purveyors to increase water storage capacity, maintain and enhance infrastructure, and cross-connect water systems.
 - **Implementation Program 14.A.b:** Support the efforts of the Tuolumne Utilities District to secure modified lake level guidelines at Pinecrest Lake to provide a reliable water supply to its customers.
 - **Implementation Program 14.A.c:** Support the efforts of local water purveyors to increase water storage and pursue additional water storage initiatives within the County or acquire access to increase water storage.

- **Implementation Program 14.A.d:** Work with other agencies and water purveyors, such as the Tuolumne County Water Agency, to develop, adopt and fund long term strategic infrastructure maintenance, modernization and sustainability plans by identifying areas that would benefit from improvement projects, obtaining funding for such projects, and implementing projects identified in the strategic plan.
- ▲ **Policy 14.A.6:** Encourage water purveyors to provide an adequate water supply to meet long term needs in a manner that is consistent with this General Plan and urban water management plans and that maintains water resources for water users while protecting the natural environment.
- ▲ **Policy 14.B.1:** Support water districts in establishing conservation standards to reduce demand for water.
 - **Implementation Program 14.B:** Support the efforts, such as funding applications and inter-agency coordination, of water agencies and districts to prevent the depletion of water resources and promote the conservation and reuse of water.
- ▲ **Policy 14.B.2:** Increase water conservation efforts to maximize water use efficiency within Tuolumne County through conservation, recycling and education.
 - **Implementation Program 14.B.b:** Encourage water reuse programs in new development to conserve raw or potable water supplies consistent with State Water Resources Control Board guidelines through the application review process.
 - **Implementation Program 15.4.c:** Support the efforts of water purveyors to rehabilitate water delivery systems to reduce lost water and increase the efficient use and availability of water.
 - **Implementation Program 14.B.d:** Encourage water reuse/recycling through the treatment and distribution of treated wastewater by working with new development to identify ways to incorporate reuse/recycling into projects.
 - **Implementation Program 14.B.e:** Ensure the conservation of water through the implementation of the Tuolumne County Landscaping Requirements, Chapter 15.28 of the Tuolumne County Ordinance Code, which provide for the use of xeriscape landscaping plants and materials to conserve water, the use of water conserving irrigation systems for landscaping, and the use of reclaimed or reused water for irrigation.
 - **Implementation Program 14.B.f:** Prohibit any processing activities with high water use practices near areas where groundwater overdraft problems exist, unless the facility uses water recycling and conservation techniques that minimize effects of water use on the groundwater table.
 - **Implementation Program 14.B.g:** Develop an outreach program, working with the water service providers in the region, to encourage development to be constructed with, or upgraded to, water-efficient plumbing fixtures, landscaping, and irrigation systems, and use graywater and/or recycled water for irrigation.
 - **Implementation Program 14.B.h:** Encourage the use of domestic graywater for landscape irrigation and other purposes and consider establishing incentives for new development to install graywater systems in areas where such systems are allowed by the applicable water or sewer purveyor. Recognize that water or sewer purveyors may adopt regulations to prohibit or otherwise regulate graywater systems that could adversely affect the efficient operation of their systems.
 - **Implementation Program 14.B.i:** Explore the feasibility of reducing wastewater through the use of dry/composting toilets in new construction consistent with Goal 3E.

- **Implementation Program 14.B.j:** Support the development of educational programs by water districts and public agencies to increase public awareness of efficiently conserving, using, reusing, and managing water resources.
- **Implementation Program 14.B.k:** Provide information on water conservation measures to the general public and consult with conservation efforts of the water districts.
- **Implementation Program 14.B.l:** Promote and facilitate the use of reclaimed wastewater for agricultural irrigation, in accordance with the guidelines published by the State Water Resources Control Board.
- **Implementation Program 14.B.m:** Cooperate with the Agricultural Commissioner, Cooperative Extension Service, Farm Bureau and water districts to promote the protection of water resources in agricultural areas by encouraging programs that assist producers in using water efficiently in agricultural operations and by promoting technology for efficient water use in agriculture.
- **Implementation Program 14.B.n:** Utilize water-efficient plumbing fixtures and irrigation systems on publicly owned property.
- **Implementation Program 14.B.o:** Support development of new technology to improve efficient use of water.
- **Implementation Program 14.B.p:** Encourage plumbing retrofits to be installed in existing buildings to reduce water use by working with water purveyors to inform their customers about the permit process to facilitate such retrofits.
- **Implementation Program 14.B.q:** Develop an outreach program, working with the water service providers in the region, to encourage existing development to upgrade to water-efficient plumbing fixtures, landscaping, and irrigation systems, and use grey and/or recycled water for irrigation.
- **Implementation Program 14.B.r:** Develop incentives, such as fee reductions, for the installation of rainwater harvesting and storage facilities to conserve water and minimize water loss in areas where such systems are allowed by the applicable water or sewer purveyor. Recognize that water or sewer purveyors may adopt regulations to prohibit or otherwise regulate graywater systems that could adversely affect the efficient operation of their systems.
- ▲ **Policy 14.C.1.** Protect the quality of the County's water resources by supporting the efforts of local districts to maintain infrastructure and cross-connect sewer systems and ensuring Tuolumne County's development standards are adequate to protect surface and groundwater resources from contamination.
 - **Implementation Program 14.C.a:** Maintain local source water protection and wellhead protection programs in the Tuolumne County General Plan, such as setbacks, to protect the sources of drinking water supplies.
 - **Implementation Program 14.C.b:** Implement grading and surface runoff standards, such as retention and detention, permeable surfaces and recharge, necessary to protect water resources in compliance with State and Federal water quality regulations and with the County's water quality plan referenced in Implementation Program 14.C.e.
- ▲ **Policy 14.C.2:** Encourage new urban development to locate in areas where public water and sewer services are available or can be developed.

- **Implementation Program 14.C.c:** Continue to require new urban residential development with a density of one dwelling unit per two acres, or greater, and commercial development, except on land designated as Special Commercial by the General Plan land use diagrams, to be served with public water.
- **Implementation Program 14.C.d:** Continue to require new urban residential development with a density of three dwelling units per acre, or greater, and commercial development, except that on land designated Special Commercial by the General Plan land use diagrams, to connect to public sewer.
- ▲ **Policy 14.C.3:** Support the efforts of the local water agencies in identifying and procuring new water resources to meet projected future demands from growth in the County, including the use of reclaimed water.
- ▲ **Policy 14.C.9:** Promote improved watershed health, improved water quality and water quantity yields of the watersheds in Tuolumne County.
 - **Implementation Program 14.C.i:** Promote the development of plans for watershed rehabilitation projects which provide for such watershed improvements as:
 - A reduction in the presence of contaminants in drinking water by addressing the origins and treatment of the contaminants, including, to the maximum extent practicable, the specific activities that affect the drinking water supply of a community or communities.
 - An increase in the quantity of water available from the watershed.
 - The improvement, restoration, or enhancement of fisheries habitat, including riparian habitat, in and along streams and watercourses in the watershed. These projects may address factors which increase sedimentation in streams and watercourses in the watershed.
 - The improvement of overall forest health, including the reduction of factors which may contribute to the severity of wildfires in the watershed.
 - **Implementation Program 14.C.j:** Initiate or assist in the formulation of plans for watershed rehabilitation projects with the County serving as the coordinating agency for the various stakeholders in such a plan, such as property owners, water agencies, other public agencies, private industry, recreational facility providers and other interested groups and organizations. Provide technical assistance in the development of plans for watershed rehabilitation projects through such means as data sharing.

Utilities Element

- ▲ **Policy 3.A.1:** Encourage the siting of new urban development either within or adjacent to identified communities to maximize the use of existing infrastructure and encourage the logical extension of public water services infrastructure. When new urban development is proposed to be located outside but adjacent to identified communities, it should be located in proximity to existing water supply infrastructure.
- ▲ **Policy 3.A.2:** Require new commercial development to be served by public water systems, except for development in areas designated as Special Commercial on the General Plan land use diagrams.
 - **Implementation Program 3.A.a:** Utilize the Special Commercial (SC) General Plan land use designation on property suitable for commercial development of a neighborhood, rural or tourist-oriented nature but lacking service from a public water system. Development of a commercial nature on land designated SC is allowed with applicant permits without having service from a public water or sewer system, but only where service is not reasonably available.

- ▲ **Policy 3.A.3:** Continue to require new urban residential development with a density of one dwelling unit per two acres, or greater, and commercial development, except on land designated as Special Commercial (SC) by the General Plan land use diagrams, to be served with public water.
- ▲ **Policy 3.A.6:** Require new commercial development in areas designated as Neighborhood Commercial, General Commercial or Heavy Commercial on the General Plan land use diagrams and urban residential development (densities greater than one dwelling unit per two acres) to be served by a public water distribution system. Prior to approval of any discretionary entitlement for such development, a public water distribution system must have indicated that service is available and it has a reliable source of water to serve their existing and future customer's foreseeable needs. Prior to occupancy of the development, the service must be in place.
- ▲ **Policy 3.B.1:** Require that development is consistent with the applicable water purveyor master plan, including as applicable, the proper design and sizing of water distribution lines, storage tanks, and other aspects of the water infrastructure system both on and off the site of development.
- ▲ **Policy 3.B.2:** Consider whether the water system proposed to serve a new development has a reliable source of water, sized to serve their existing and future customer's' foreseeable demands. Projects shall only be approved where the water supply system has reliable sources of water capable of meeting present and future demands.
 - **Implementation Program 3.B.a:** Continue to require new urban development needing discretionary entitlements to secure a letter from the jurisdictional public water agency stating that the proposed project can be served by that agency and that there is an available water supply.
 - **Implementation Program 3.B.b:** Encourage new industrial development to locate in areas which have the capability of being served by a public water system, or a private system when it can be reasonably demonstrated that the development will not cause an adverse public health problem by maintain zoning code standards for the provision of public water for industrial zoning districts and requiring review by the Environmental Health Division when exceptions are requested.
 - **Implementation Program 3.B.c:** New development shall not be approved that is proposed to be served by a public water purveyance system that does not include the project area within the defined geographic limits of service unless the public water purveyance system is in the process of or agrees to pursue action to include the project area within the purveyor's limits of service.
- ▲ **Policy 3.B.3:** Encourage the logical extension of public water services infrastructure during review of new land development projects to provide a reliable and adequate distribution system to meet the future needs of the water purveyor.
- ▲ **Policy 3.D.1:** Encourage the installation of public sewage systems in existing communities that are experiencing repeated septic system failures.
- ▲ **Policy 3.D.2:** Encourage new urban development to be served by public sewer systems.
 - **Implementation Program 3.D.a:** Require the logical extension of sewer lines and infrastructure to areas of existing development where there are known limitations or problems associated with on-site underground sewage disposal.
- ▲ **Policy 3.D.3:** Assist and cooperate in master planning sewer facilities and encourage the extension of additional public services through the installation of larger utility distribution lines and off-site improvements on new developments.

- **Implementation Program 3.D.b:** Provide land use data from the General Plan, proposals being considered for updating the land use diagrams of the General Plan, and other relevant maps and data to districts who provide sewage disposal to be used in preparing their master plans. Data and maps showing areas noted as being hazardous for underground disposal or areas of known leach field failures, as well as relevant land use data, shall be shared.
- **Implementation Program 3.D.c:** Review and consider land use implications of sewer master plans prepared by any of the sewer districts in the County.
- **Implementation Program 3.D.d:** Provide descriptions of proposed land development projects that may require sewer service or in some way affect the ability of the sewer purveyor to provide service, to all affected utility districts or public sewer systems and consider comments in the evaluation process.
- ▲ **Policy 3.E.1:** Maintain standards for residential development that sets a minimum lot size that can be created without service by a public sewer system.
 - **Implementation Program 3.E.a:** Continue to require new urban residential development with a density of three dwelling units per acre, or greater, and commercial development, except that on land designated Special Commercial (SC) by the General Plan land use diagrams, to connect to public sewer.
- ▲ **Policy 3.E.2:** Require that proposed development in areas of known or suspected geological limitations to underground sewage disposal either be served by a public sewer system, or successfully demonstrate that on-site underground sewage disposal can be accomplished with no lessening of quality to ground or surface waters.
- ▲ **Policy 3.E.3:** Encourage new industrial and commercial development in areas where a public sewer system is available, or require evidence that there is a capability of functioning on a private system without any adverse public health impact.
- ▲ **Policy 3.E.4:** Require development to connect to a public sewer system if it is reasonably available.
 - **Implementation Program 3.E.b:** Encourage the siting of urban development either within or adjacent identified communities (see if this conflicts with LU) to maximize the use of existing infrastructure and reduce the need for expansion of the public sewer system. Where urban development is proposed to be located outside but adjacent to identified communities, it should be preferentially located in proximity to existing public sewer infrastructure.
 - **Implementation Program 3.E.c:** Consider whether areas proposed for designation as Neighborhood Commercial, General Commercial, Heavy Commercial, Business Park, Mixed Use, Light Industrial or Heavy Industrial on the General Plan land use diagrams can be served by a public sewer system. If public sewer service is available, the public sewer system shall be used for commercial or industrial development. Public sewer service is considered "available" according to the definition in Chapter 13.08 of the Tuolumne County Ordinance Code. Prior to approval of any discretionary entitlement for such development, a public sewer purveyor must have indicated that service is available, or an acceptable plan for sewage disposal through a private system must be approved by the Environmental Health Division or the State Water Resources Control Board. Prior to occupancy of the development, the service must be in place.
 - **Implementation Program 3.E.d:** Continue to allow industrial development to be served by private water and sewage disposal systems provided that they are first approved by the agency having jurisdiction by law.
 - **Implementation Program 3.E.e:** Require development that is proposed on a parcel within 300 feet uphill or 100 feet downhill of a public sewer system's primary pipeline to connect to that system for

service in accordance with Chapter 13.08 of the Tuolumne County Ordinance Code. This includes all urban residential development, and commercial and industrial development. This does not apply when the public sewer system's treatment plant is at its capacity level or the sewer purveyor indicates the connection is not feasible, or the project lies outside the defined service area established for a district.

- ▲ **Policy 3.F.1:** Require proposed solid waste facilities and all other new development to comply with the Tuolumne County Integrated Waste Management Plan and all adopted elements thereof.
 - **Implementation Program 3.F.a:** Encourage alternative methods of disposal of vegetative matter, including, but not limited to, composting, mulching or transporting the material to biomass facilities that accept it.
 - **Implementation Program 3.F.b:** Continue to offer a program for processing brush and yard debris in the County which avoids adverse impacts to energy consumption and generates a usable product, such as the Cal Sierra Earth Resource Facility.
- ▲ **Policy 3.F.2:** Encourage the recycling of products and materials and support the efforts of agencies, businesses and the general public to reduce the waste stream.
 - **Implementation Program 3.F.c:** Support existing and encourage the development of new recycling facilities.
 - **Implementation Program 3.F.d:** Continue to require franchise waste haulers to offer the Commingled Recycled System or a similar recycling program.
 - **Implementation Program 3.F.e:** Create and implement a countywide green waste and recycling program for residential and non-residential land uses. Implement a program to educate residents and business owners about recycling requirements and opportunities.
 - **Implementation Program 3.F.f:** Encourage the development of new and expansion of existing businesses which reuse products and materials, recycle waste materials or convert waste products to energy.

PROJECT IMPACTS

This section presents a programmatic-level analysis of potential impacts associated with provision of utility service. Evaluation of environmental impacts associated with projected development under the General Plan Update considers the development in accordance with goals, policies, and implementation programs, to accommodate projected growth in the County. It should be noted that the County's population is projected to grow by 0.6 percent annually over the planning horizon (2040). As discussed in detail in Chapter 2, "Project Description," and the introduction to Chapter 3, this is a relatively low amount of growth.

Impact 3.17-1: Exceed Water Supply Infrastructure Capacity or Entitlements such that New or Expanded Infrastructure or Entitlements would be Required

Projected development under the General Plan Update would result in an increase in water demand. Although areas served by TUD would have adequate supplies of water without new or expanded infrastructure or entitlements, it is inconclusive with available data to determine if areas served by other water purveyors would have adequate capacity to serve new connections. Further, new development or expanded service encouraged through the General Plan Update may require new or expanded water supply infrastructure. However, with implementation of policies that require the provision of water prior to development, and because subsequent infrastructure expansion projects would be subject to separate environmental review, impacts related to water supply would be **less than significant**.

Projected development under the General Plan Update would increase demand for water. As detailed in Table 2-6, it is projected that the General Plan Update would accommodate 4,332 new single-family residences, 827 multi-family residential units, 938,000 square feet of commercial uses, and 196,000 square feet of industrial uses in the County by the year 2040. Depending on location, new connections would receive water from TUD, GCSD, the Lake Don Pedro CSD, other water providers, or private groundwater wells. However, as described above, TUD provides water either directly or indirectly (through sales to other water agencies) to most of the developed portions of Tuolumne County. Because of TUD's geographic coverage, which includes many of the identified communities, and due to the limited growth projected, it is anticipated that water demand in areas served by other water districts would be limited.

The location where new development may occur is expected to roughly coincide with where TUD provides services, but other growth may occur outside TUD's service area; simply, it would be speculative to determine the exact locations of growth. As shown in Tables 3.17-1 and 3.17-2, above, TUD forecasts that water supply will exceed demand through the 2040 planning horizon of the General Plan Update by an estimated 7,100 AFY under normal conditions. This is a large margin, equal to roughly 25 percent of its supply, and includes water supplied by TUD to the Twain Harte CSD. This is based on projected annual growth rates of 2.34 percent between 2015 and 2035, and 0.87 percent between 2035 and 2040, which exceed the annual growth rate projected in the General Plan Update. In contrast, GCSD's UWMP utilizes a projected growth rate of 0.25 percent annually, which is less than the 0.6 percent growth rate used in the General Plan Update. This may or may not match actual growth because, as explained above, it would be speculative at the general plan level to forecast exact locations of growth. However, areas served by TUD (the majority of where growth is expected) would be expected to have adequate supplies of water without new or expanded infrastructure or entitlements. Areas served by other water purveyors, however, may or may not have adequate capacity to serve new connections due to new development or expanded service, depending on the actual rate of growth (if any) in their district boundaries.

During periods of water shortage, TUD has the authority to manage water demand by implementing a three-phase rationing plan summarized in Tables 3.17-2 and 3.17-3. Pursuant to Resolution 31-15, TUD's current water connection fee also includes money for TUD to implement demand offset projects that would yield enough water to serve new connections. Therefore, water rationing (if needed) and demand offset projects would ensure that the TUD has an adequate water supplies and infrastructure capacity to serve projected development under the General Plan Update.

In addition, General Plan Update policies and implementation programs would seek to increase the water supply and reduce water demand in Tuolumne County. The updated Utilities Element and Water Supply Element have the following relevant policies and implementation programs that would address potential impacts to water supply in the County. Policies 14.A.1, 14.1.2, and 14.C.9 support the pursuit and acquisition of new supplies and efforts to increase water storage capacity by local purveyors while promoting improved watershed health and yield. Other policies (Policy 14.A.6 and Policy 14.C.3) encourage water purveyors to plan for long-term needs and support the efforts of local water agencies to identify, procure, and plan for long-term projected future water demand. Policy 14.C.2 encourages new development to locate where adequate water services are available. Policies 3.A.1 through 3.A.3 and Policy 3.A.6 encourage the siting of new development such that it is served by existing water infrastructure or is in proximity to existing infrastructure, require new urban residential and commercial development to be served by public water systems, and require that water service is in place prior to development of these projects. Policy 3.B.1 requires that development is consistent with the applicable purveyor masterplan.

Policy 3.B.2 ensures that projects are only approved where water supplies are reliable. More specifically, Implementation Program 3.B.a, which implements Policy 3.B.2, requires new urban development needing discretionary entitlements to secure a letter from the jurisdictional public water agency stating that the proposed project can be served by that agency and that there is an available water supply. Therefore, new development projects would not be constructed if potable water supply is not available to serve the project. This policy provides a stop-gap assurance that adequate water to serve development would be provided. Policy 3.B.3 encourages the logical extension of water infrastructure. These policies and their supporting

implementation program would enhance the reliability and availability of the water supply system and would require appropriate development types to be served by public water after demonstrating that appropriate supply is available.

Individual wells are addressed in the Hydrology section of this EIR, under Impact 3.10-4. In short, construction of new private wells would be limited, dispersed throughout the County, and subject to permits that require appropriate setback distances and other special requirements in flood zones or groundwater deficient areas. It is possible that an individual well could fail or be insufficient to serve an individual parcel due to localized groundwater conditions. While this would be adverse to the individual property owner, and could result in the need to construct another well, this would not be a substantial effect because it would be limited to individual parcels if it happened at all.

Further, specific infrastructure improvements that may be completed during the planning horizon to accommodate new growth or serve existing growth, as encouraged by the General Plan Update, would be completed at the discretion of the water service provider. These projects would generally occur in previously-disturbed areas, such as road rights of way, but there may be exceptions, and construction these new facilities could result in environmental effects (i.e., air quality, noise, hydrology and water quality, biological resources, cultural resources, etc.). These improvements would be consistent with the typical construction effects of development associated with the General Plan Update, which are evaluated throughout this Recirculated Draft EIR. In addition, individual improvements would be subject to separate environmental review under CEQA. Impacts of projected development under the General Plan Update related to water supply would be **less than significant**.

Mitigation Measures

No mitigation would be required.

Impact 3.17-2: Prevent Achievement of Water Quality Treatment Standards or Result in Significant Environmental Effects due to the Construction of New or Expanded Wastewater Capacity

Projected development under the General Plan Update would increase wastewater generation above existing conditions. However, existing wastewater treatment facilities have adequate capacity to accommodate new development, and General Plan Update policies would further reduce potential impacts. Therefore, impacts would be **less than significant**.

Projected development under the General Plan Update would increase generation of wastewater. Depending on its location, new development could generate wastewater in the service areas of TUD, GCSD, Twain Harte CSD, Tuolumne Sanitary District, or Jamestown Sanitary District, or may be served by a septic system.

As with the estimates of water demand in Impact 3.17-1, this analysis assumes that most growth would occur within TUD's service area because TUD currently serves most of the County, and the service area includes most of the identified communities. Growth that occurs outside of TUD's service area is not anticipated to have a substantial effect on wastewater capacity or treatment standards due to the small geographic area and relatively low rate of growth anticipated, and because most development outside of the service area would utilize individual, on-site septic systems which are subject to permits and regulations that protect offsite parcels from water pollution.

TUD relies on the new development anticipated by Tuolumne County and the City of Sonora under their General Plans in assessing the infrastructure needs within its service areas due to non-acquisition growth (TUD 2015). TUD's 2015 UWMP is intended to be consistent with the growth projections used in the General Plan Update and reflects a 0.6 percent growth rate between 2015 and 2040. The UWMP projects that 2,316 acre-feet of wastewater will be collected and treated in the services areas of the Sonora RWWTP and JSD WWTP in 2040 (TUD 2016a).

As indicated above, the Sonora RWWTP has a design capacity of 2.6 million gallons per day, or about 2,900 acre feet annually, and the JSD WWTP (which serves the community of Jamestown) is a secondary level WWTP with a design capacity of 0.42 MGD, or about 470 AFY (TUD 2016a). The estimated volume of wastewater generated by the population growth in TUD's service area projected in the General Plan Update would, therefore, be within the capacity of the existing wastewater treatment plants and the construction of new wastewater treatment facilities would not be required.

The General Plan Update Utilities Element includes policies and implementation programs related to wastewater service provision. For example, Policies 3.D.1, 3.E.1, and 3.E.2 encourage the development of public sewer systems where septic is failing and cooperation to extend new sewer services as needed, as well as maintaining standards that would minimize development not served by public sewers. Policies 3.D.2 and 3.E.3 encourage new urban development served by public sewer systems, and Policy 3.E.4 requires connection to public sewers where available.

Anticipated growth would result in an incremental increase in wastewater flows. In addition, General Plan Update policies to connect new development to public sewer systems, rather than to individual septic systems, would increase the volume of wastewater handled by public facilities and may result in the extension of service to new areas. However, these policies would reduce water quality problems from the proliferation of septic tank systems.

The utility districts continually evaluate the potential for new or expanded service based on existing and projected conditions. TUD and other service providers would use the General Plan Update to inform facility planning. Where new connections or increased wastewater flow result in the need for new or expanded wastewater infrastructure, these projects would be subject to subsequent review. As described above for water, wastewater infrastructure projects would generally occur in previously-disturbed areas, such as road rights of way, but exceptions could occur, and construction these new facilities could result in environmental effects (i.e., air quality, noise, hydrology and water quality, biological resources, cultural resources, etc.). These improvements would be consistent with the typical construction effects of development associated with the General Plan Update, which are evaluated throughout this Recirculated Draft EIR. In addition, individual improvements would be subject to separate environmental review under CEQA. Therefore, impacts related to wastewater facilities would be **less than significant**.

Mitigation Measures

No mitigation would be required.

Impact 3.17-3: Result in Significant Environmental Effects due to the Construction of New or Expanded Storm Water Infrastructure

Projected development under the General Plan Update would incrementally increase the amount of impervious surfaces within the County, which could result in increased storm water runoff and the need for additional storm water infrastructure. However, the County's existing Water Quality Plan and policies and implementation programs in the General Plan Update would require adequate facilities and minimize the potential for adverse effects. Therefore, impacts would be **less than significant**.

The General Plan Update would facilitate additional development, which would incrementally increase the amount of impervious surface area in the unincorporated portion of Tuolumne County. The potential increase in storm water runoff from new development could place greater demand on the existing storm water conveyance infrastructure. The Tuolumne County Community Resources Agency has identified existing storm water infrastructure as in need of improvement in the areas of Sullivan, Sonora, Mormon, Woods, and Curtis Creeks. New development under the General Plan Update would increase the need for improvements to new or expanded infrastructure. In addition, Policy 1.A.13 and Implementation Program 1.A.m in the General Plan Update promote extension of storm water infrastructure to existing Disadvantaged Legacy Communities.

The General Plan Update could result in the need for new and expanded storm water infrastructure due to the demand generated by new development, the County’s policy to encourage the extension of facilities to existing Disadvantaged Legacy Communities, and existing deficiencies in the storm water system. Continued implementation of the Tuolumne County Water Quality Plan would minimize impacts on storm water infrastructure. Chapter 3 of the Water Quality Plan includes programs to develop a comprehensive map of the County’s storm sewer system, to control non-permitted discharges into this system, and to stencil messages at storm drain inlets to educate the public about storm water runoff pollution. In addition, the Water Quality Plan includes requirements for best management practices to reduce the discharge of storm water runoff from new development during and after construction. It is anticipated that as projected development under the General Plan Update occurs, storm water infrastructure would be upgraded on a project-specific basis in accordance with the Water Quality Plan’s requirements. These projects would be subject to subsequent environmental review and would be required to comply with the General Plan Update policies as they relate to storm water infrastructure, as well as state requirements for storm water management.

With implementation of the County’s Water Quality Plan and regulations that require the evaluation of storm water improvements at the project-level, impacts due to the expansion of storm drainage facilities would be **less than significant**.

Mitigation Measures

No mitigation would be required.

Impact 3.17-4: Result in Need for Additional Landfill Capacity

Projected development under the General Plan Update would result in an overall increase in the amount of solid waste generated in the County. However, existing landfills would adequately serve development throughout the planning horizon of the General Plan Update, and policies in the Utilities Element would further reduce solid waste. Therefore, impacts would be **less than significant**.

As described in Section 3.8, “Global Climate Change,” the service population of the County is anticipated to increase by 8,906 residents and 1,735 employees through the 2040 planning horizon. As shown in Table 3.17-5, this projected population would generate an estimated additional 24.4 tons of solid waste for disposal at landfills daily.

Table 3.17-5 Net Increase in Solid Waste Generation by 2040

Land Use	Net Population Increase by 2040	Generation Factor	Solid Waste Generation ¹
Residents	8,906	3.8 lbs/day	16.9 tons/day
Employees	1,735	8.6 lbs/day	7.5 tons/day
Total			24.4 tons/day

Notes: lbs = pounds

¹ Includes 7 percent reduction based on current recycling rates for Cal Sierra Disposal, Inc., which serves the majority of Tuolumne County.

Source: Calculations performed by Ascent in 2018 based on CalRecycle 2018b

All solid waste that is collected by Tuolumne County’s three solid waste providers – Cal Sierra Disposal, Burns Refuse Service, and Moore Bros Scavenger Co. – and not diverted for recycling is disposed of at the Highway 59 landfill in Merced. Tuolumne County’s current contract for disposing of solid waste at the Highway 59 landfill runs through June 30, 2022. Currently, the Highway 59 landfill has a maximum permitted throughput of 1,500 tons per day and receives 677.6 tons per day during the 6 days per week on which it operates. This landfill has a remaining capacity of 822.4 tons per day. Assuming that projected

development under the General Plan Update contributes an addition 24.4 tons per day to the Highway 59 landfill, it would still have a remaining capacity of 798 tons per day. Furthermore, the Merced County Regional Waste Management Authority estimates that the Highway 59 landfill will have remaining capacity at least until the year 2080, which is four decades beyond the planning horizon of the General Plan Update. Therefore, this landfill can accommodate solid waste from projected development under the General Plan Update. In addition, Policy 3.F.1 of the General Plan update requires that new solid waste facilities and new development comply with the Tuolumne County Integrated Waste Management Plan, and Policy 3.F.2 encourages recycling to reduce waste. Because applicable landfills have capacity to accommodate solid waste generated under the life of the General Plan Update, impacts related to solid waste would be **less than significant**.

Mitigation Measures

No mitigation would be required.