

## 3.11 LAND USE AND PLANNING

This section analyzes the General Plan Update's consistency with applicable local, regional, and state land use policies. Several comments on land use and planning were received on the Draft EIR. These included general comments, comments regarding specific zoning changes at the parcel or community level, and comments about zoning compatibility with utilities and easements. Comments also addressed open space, agritourism, increased residential densities, classification of urban areas, infill, and mixed-use development. The concerns addressed in these letters are addressed below, as appropriate.

### 3.11.1 Environmental Setting

According to the current 1996 General Plan Land Use Designations, the majority of the unincorporated area of Tuolumne County (77.10 percent of total acreage) is designated Public on the land use diagram, which includes open land, infrastructure, and parks, and recreational facilities run by various state, federal, regional, and local agencies. Agricultural land makes up 11.20 percent of the total acreage, and timber production makes up 5.99 percent. Thus, a small portion of Tuolumne County, 5.71 percent, is available for residential, commercial, and industrial land uses while the vast majority of the unincorporated area remains primarily undeveloped. Tuolumne County is subject to the land use regulatory policies of various state regional agencies. These agencies and the corresponding policy documents that affect land use planning in Tuolumne County are discussed below.

### 3.11.2 Regulatory Setting

Tuolumne County retains land use authority and jurisdiction over territory within the County that is not located in its sole incorporated city (Sonora) and is not owned by the state and federal government or other government agencies. 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. The City of Sonora and other government agencies are not subject to the County's land use regulations and are, therefore, outside the jurisdiction of the General Plan Update.

#### FEDERAL

There are no federal regulations that pertain to land use that are applicable to the General Plan Update. The federal government develops and implements its own policies for land under its jurisdiction, such as the national forests and Yosemite National Park. However, because the County has no jurisdiction over these lands, there is no intersection of County and federal land use regulation.

#### STATE

##### Planning and Zoning Law

The legal framework in which California cities and counties exercise local planning and land use functions is provided in the California Planning and Zoning Law, Government Code Section 65000 et seq. Under state planning law, each city and county must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include the inclusion of seven mandatory elements described in the Government Code. Each of the elements must contain text and descriptions setting forth

objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and mitigation measures.

### Office of Planning and Research General Plan Guidelines

To assist local governments in meeting general plan requirements, the Governor's Office of Planning and Research is required to adopt and periodically revise guidelines for the preparation and content of general plans (Government Code Section 65040.2). These are advisory guidelines, not mandated requirements, and serve as a reference tool for cities and counties in the preparation of local general plans. The guidelines include information on the required contents of a general plan, sustainable development and environmental justice, formatting, public participation, and implementation. The General Plan Guidelines were updated in 2017.

## LOCAL

### Tuolumne Tomorrow Regional Blueprint - Distinctive Communities Alternative Growth Scenario

Tuolumne Tomorrow is a Regional Blueprint planning process for directing future growth and enhancing the quality of life in the County over the next few decades. Through this coordinated effort, the City of Sonora, Tuolumne County, Tuolumne County Transportation Council (TCTC), and community members developed Guiding Principles for growth and development and studied the potential effects of the likely land use development pattern and possible alternative growth scenarios on the transportation system, housing, local economy, quality of life, natural resources, and the environment. As a result of this effort, the Distinctive Communities Growth Scenario was selected and adopted by the Board of Supervisors in August 2012 as the preferred growth scenario for Tuolumne County. The Distinctive Communities Growth Scenario encourages mixed-use and infill development within the vicinity of or near existing communities, transportation networks, and public services.

### Regional Transportation Plan

TCTC adopted the 2016 Regional Transportation Plan (RTP) in 2017. The 2016 RTP focuses on developing a coordinated and balanced multimodal transportation system and considers short-range (0–10 years) and long-range (11–25 years) transportation investment for all modes, including highways, public transportation, bicycle facilities, pedestrian facilities, railroads, aviation, and goods movement within a financially constrained environment. The 2016 RTP establishes regional transportation goals, objectives, and rural sustainable strategies. The RTP identifies present and future needs, deficiencies and constraints, analyzes potential solutions, estimates available funding, and proposes investments for short and long-term projections (TCTC 2015). The 2016 RTP is consistent with state and federal transportation planning requirements, including the California Department of Transportation's 2010 Regional Transportation Guidelines and the Regional Transportation Plan Checklist.

The 2016 RTP identifies the following regional transportation goals:

- ▲ **Regional Goal 1:** Enhance the quality of life of Tuolumne County residents by providing transportation access to jobs, housing, recreation, and community services.
- ▲ **Regional Goal 2:** Preserve the multimodal system by maintaining, managing, and efficiently utilizing the existing transportation system.
- ▲ **Regional Goal 3:** Improve the multimodal system by expanding and enhancing transportation choices, and connections to meet the future transportation needs.
- ▲ **Regional Goal 4:** Promote strategic and cost-effective transportation investments that create sustainable economic growth and improve transportation services and facilities.

- ▲ **Regional Goal 5:** Practice environmental stewardship by protecting our air quality, natural resources, historical and cultural assets.
- ▲ **Regional Goal 6:** Integrate land use and transportation decisions by prioritizing infrastructure investments within the Defined Community Boundaries that strikes a balance between development, available infrastructure, conserves natural resources, and provides for a high quality of life.
- ▲ **Regional Goal 7:** Consider transportation safety, and security in all transportation funding decisions.
- ▲ **Regional Goal 8:** Support a vibrant economy by enhancing the movement of goods and people to spur economic development, growth, and job creation.
- ▲ **Regional Goal 9:** Encourage and promote public involvement and social equity in all transportation decisions.
- ▲ **Regional Goal 10:** Continue the inter-organizational commitments of cooperative, mutually dependent action that is required to provide efficient multimodal transportation system

The plan includes a Rural Sustainable Community Strategies Element that builds upon previous Tuolumne County Regional Blueprint Plan efforts and provides an alternative sustainability plan for compliance with stat-wide air quality regulations.

### **Tuolumne County Airport Land Use Compatibility Plan**

The Tuolumne County Airport Land Use Commission (ALUC) is responsible for reviewing airport and adjacent land use proposals on and near Columbia Airport and Pine Mountain Lake Airport. The criteria and affected areas in proximity to the airports are defined in the Tuolumne County Airport Land Use Compatibility Plan (ALUCP), which was approved in 2003. The goal of the ALUCP is to promote compatibility between the public-use airports within Tuolumne County and the land uses which surround them. The ALUCP serves as the primary tool for use by the ALUC in its review of land development proposals at County airports and on surrounding land. The ALUCP contains policies regarding noise, safety, airspace protection, and aircraft overflights which apply primarily to property located within the airport influence area boundaries associated with the two County public-use airports.

### **Tuolumne County General Plan**

The 1996 General Plan provides a framework for addressing land use issues 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 General Plan Update Community Development and Design Element contains goals to facilitate projected development under the General Plan Update in a manner that would minimize potential land use conflicts. Specific General Plan Update policies related to land use are identified below under Section 3.11.3, "Impact Analysis."

## **3.11.3 Impact Analysis**

### **METHODS OF ANALYSIS**

Potential impacts resulting from projected development under the General Plan Update are evaluated based on a review of planning documents pertaining to the County. The focus of this land use analysis is on land use impacts that would result from the new General Plan Update policy document and Land Use Diagram. The potential for General Plan Update policies, as well as other County policies and regulations, to result in or manage environmental impacts with regard to other resources is evaluated throughout the other technical sections of this Recirculated Draft EIR, where such policies and regulations are relevant.

## THRESHOLDS OF SIGNIFICANCE

The discussion of land use impacts analyzes the General Plan Update's consistency with applicable policies of various regional and local plans for the purposes of assessing the General Plan Update's environmental impacts related to land use. An impact is considered 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, which are based upon the environmental checklist in Appendix G of the CEQA Guidelines:

- ▲ physically divide an established community;
- ▲ conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect; or
- ▲ conflict with any applicable habitat conservation plan or natural community conservation plan.

Because a habitat conservation plan or natural community conservation plan is not in place in Tuolumne County, the General Plan Update would not conflict with any habitat conservation plan or natural community conservation plan. Potential for conflict with other regional plans is addressed below. Consistency with the Tuolumne County ALUCP is evaluated in Section 3.9, "Hazards and Hazardous Materials," and other policies and regulations relevant to other resources are addressed where such resources are addressed in this EIR.

Although the following analysis evaluates consistency with various regulatory policies, it should be noted that each individual agency (TCTC, Local Agency Formation Commission of Tuolumne County, and ALUC) ultimately has the discretion to determine consistency of the General Plan Update with the policies, plans, and/or programs that fall within that agency's purview.

## GENERAL PLAN UPDATE POLICIES

General Plan Update policies related to land use and planning and, specifically, the thresholds of significance identified above, include the following:

### Community Development and Design Element

- ▲ **Policy 1.A.4:** Focus urban growth in identified communities, emphasizing infill development and the intensified use of existing development.
  - **Implementation Program 1.A.c:** Designate land between identified communities for non-urban land uses to protect the individual character of each community and to maintain distinct boundaries between communities.
  - **Implementation Program 1.A.d:** Maintain the County's rural character by utilizing transitional land uses around urban areas as buffers between communities and agricultural areas and timberlands, including rural density development, recreation areas, cluster developments, and natural features such as streams, ridgetops and large stands of trees.
  - **Implementation Program 1.A.e:** Designate adequate land in and around identified communities for urban land uses to allow for the growth accommodated in the General Plan. Limit the future conversion of non-urban designated land to urban designations to parcels immediately adjacent to identified communities.
- ▲ **Policy 1.A.5:** Promote infill and clustered patterns of development that facilitate the efficient and timely provision of infrastructure and services.
  - **Implementation Program 1.A.f:** Encourage a compact development pattern in and around identified communities through the General Plan land use diagrams.

- **Implementation Program 1.A.g:** Target public funds toward identified communities to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.
- **Implementation Program 1.A.h:** Provide incentives to applicants with approved undeveloped projects that are modified to be consistent with High Density or Medium Density land use designations where allowable densities have been increased.
- ▲ **Policy 1.A.6:** Establish growth areas to provide community services and enhance the quality of life by providing for economic, housing and cultural opportunities within identified communities. Where possible, these growth areas should be placed near transit stops, commercial centers, and other services.
- **Implementation Program 1.A.i:** Establish areas for growth in identified communities on the General Plan land use diagrams and zone the land in accordance with these maps.
- ▲ **Policy 1.A.7:** Encourage comprehensively planned and well-balanced, separate, and distinct communities.
- **Implementation Program 1.A.j:** Designate an adequate amount of land for industrial development, business parks, commercial facilities and recreational development to provide jobs for the County's workforce, facilities for the County's residents and visitors and promote a healthy economy.
- **Implementation Program 1.A.k:** Provide an appropriate mix of land uses and amenities in community cores to attract and retain quality businesses and institutions.
- ▲ **Policy 1.A.8:** Designate adequate areas for greenbelts, open areas, parks and recreational facilities in and around identified communities to meet the needs of growing populations and to reflect the County's changing demographics.
- ▲ **Policy 1.A.9:** Encourage the clustering of community-oriented services and amenities in and near residential neighborhoods, including schools, branch libraries, open areas and parks and limited neighborhood commercial uses to provide a community center for neighborhoods.
- **Implementation Program 1.A.l:** Formulate community plans for identified communities that provide adequate lands for community-oriented services and amenities in and near residential neighborhoods, including schools, libraries, open areas and parks, and limited neighborhood commercial uses to provide and community center for neighborhoods. These plans should also promote the linking of these types of facilities through pedestrian/bicycle paths.
- ▲ **Policy 1.A.11:** Encourage growth to be dispersed among identified communities rather than concentrated in just one or two areas in the County.
- ▲ **Policy 1.A.12:** Identify special features or characteristics, such as unique topography, critical view sheds, or sensitive habitat, in areas throughout the County that affect development potential or opportunities for conservation.
- ▲ **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.A.14:** Encourage a mix of uses in isolated identified communities that minimize the need for nearby residents to travel greater distances to access goods and services.

- ▲ **Policy 1.B.1:** Protect existing land uses from the infringement of and impacts associated with incompatible land uses.
  - **Implementation Program 1.B.a:** Designate, where possible, land around existing non-residential land uses, such as agriculture, timberlands, mining preserves and industry, for new development that is compatible with these existing uses.
  - **Implementation Program 1.B.b:** Designate, where possible, land around existing residential neighborhoods for uses that are compatible with residences. Designate areas for new urban residential development away from existing incompatible land uses, such as agriculture, mining, industry, solid waste facilities, airports and sewage treatment facilities.
  - **Implementation Program 1.B.c:** Separate new urban residential development from land uses that potentially conflict with housing, such as agriculture, mining, industry, airports and sewage treatment facilities.
  - **Implementation Program 1.B.d:** Consider buffer areas around existing industrial land uses to protect them from infringement of new residential and other potentially incompatible land uses. These buffer areas may include building setbacks and/or limiting land uses within an established distance of these existing land uses.
- ▲ **Policy 1.B.2:** Protect public facilities from the infringement of incompatible land uses.
  - **Implementation Program 1.B.e:** Designate land around the County's airports for uses that are consistent with the Tuolumne County Airport Land Use Compatibility Plan and airport master plans.
  - **Implementation Program 1.B.f:** Identify solid waste facilities in the County on the General Plan Land Use Diagrams and designate land around these facilities for compatible land uses, recognizing that some potentially incompatible land uses may already exist.
- ▲ **Policy 1.E.1:** Encourage and promote the development of housing for all income levels.
  - **Implementation Program 1.E.a:** Identify areas of the County suitable for development of housing for all income levels and designate adequate amounts of land for such development on the General Plan land use diagrams.
- ▲ **Policy 1.E.2:** Promote affordable housing throughout Tuolumne County.
  - **Implementation Program 1.E.b:** Provide incentives to developers to build new housing units that are affordable for the County's residents. These incentives shall include density bonuses, "fast-track" processing of land development permits, reduced parcel sizes and waivers of fees for affordable housing units, as defined by the County of Tuolumne.
  - **Implementation Program 1.E.c:** Designate an adequate amount of land in various density and parcel size ranges to meet the need of all income levels of the County's population.
  - **Implementation Program 1.E.d:** Maintain the Tuolumne County Ordinance Code in accordance with Accessory Dwelling Unit regulations established by the State of California. Develop local regulations to address life safety concerns.
- ▲ **Policy 1.E.3:** Consider amending the Uniform Zoning Ordinance to allow land designated Low Density Residential by the General Plan land use diagrams to be divided into six parcels per acre without requiring an exception to the development standards.

- ▲ **Policy 1.E.4:** Maintain development standards for housing projects that reflect and consider natural and cultural features, noise exposure of residents, fire hazard, circulation, access and the relationship of the development to surrounding land uses. These requirements determine residential densities and patterns which may result in a density that is less than the maximum specified by General Plan designations.
- ▲ **Policy 1.E.5:** Require subdivisions to be designed to provide well-connected internal and external streets and pedestrian facilities, where appropriate.
  - **Implementation Program 1.E.e:** Establish development standards for new housing projects to provide well-connected internal and external streets. Pedestrian facilities such as sidewalks, ramps, crosswalks, street lighting, shade trees, and curb extensions, should be required, where appropriate. Amend Title 11 of the Tuolumne County Ordinance Code to reflect these development standards.
- ▲ **Policy 1.F.2:** Promote new commercial development in rural communities that provides for the immediate needs of the local residents and services to tourists. The scale and character of such commercial development should be compatible with and complement the surrounding area.
  - **Implementation Program 1.F.b:** Provide for commercial facilities in rural areas that have limited public services by maintaining a land use designation for such facilities that has unique development standards.
- ▲ **Policy 1.F.3:** Encourage commercial development to be designed to be compatible with the scale and architectural style of historic buildings located in the community.
  - **Implementation Program 1.F.c:** Establish design guidelines for new commercial development in communities desiring design review to be compatible with the scale and architectural style of the existing buildings and integrate where appropriate natural and cultural amenities such as creeks, hillsides, scenic views, historic buildings and structures, and archaeological sites.
  - **Implementation Program 1.F.d:** Encourage street frontages in historic communities to reflect the historic “Main Street” character and ambiance.

### Utilities Element

- ▲ **Policy 3.A.1:** Encourage the siting of new urban development either within or adjacent 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.

### Transportation Element

- ▲ **Policy 4.B.1:** Develop a modern transportation system that incorporates alternative transportation modes into the system design.
- ▲ **Policy 4.B.2:** Expand and improve pedestrian sidewalks and facilities focusing on safety, connectivity, and accessibility.
- ▲ **Policy 4.B.3:** Expand and improve the bikeways within Tuolumne County, focusing on safety, connectivity, and accessibility.
- ▲ **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.

- ▲ **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.
- ▲ **Policy 4.B.6:** Actively investigate and seek alternative funding sources for 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.
- ▲ **Policy 4.C.2:** Encourage the Tuolumne County Transportation Council to enhance transit trips by improving performance, reliability, safety, security and facilities.
- ▲ **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.
- ▲ **Policy 4.C.4:** Encourage effective marketing of all existing transportation services in Tuolumne County to improve awareness of existing services.
- ▲ **Policy 4.C.5:** Support the development of medium and high-density housing, commercial and offices along transit routes.
- ▲ **Policy 4.C.6:** Support street designs that accommodate transit facilities and operations.
- ▲ **Policy 4.C.7:** Support the use of public transit during emergency evacuations by coordinating efforts through the Emergency Operations Plan.

### **Agriculture Element**

- ▲ **Policy 8.A.4:** Development proposed adjacent to land designated Agricultural by the General Plan land use diagrams shall provide a buffer from the agricultural land. The buffer shall be 200 feet in width and located on the development site. No residential or non-agricultural buildings may be erected in the buffer area as long as the adjacent land remains designated Agricultural. The buffer may be reduced in width by the Board of Supervisors after considering the recommendation of the Agricultural Advisory Committee if such a reduction is determined appropriate based upon the topography, vegetation, roads or other physical features of the buffer area or other factors considered by the Committee. If the General Plan land use designation of the adjacent land is amended in the future to a designation other than Agricultural, the need for the buffer area will be eliminated and the land use restrictions imposed pursuant to this Policy will cease at that time.
- ▲ **Policy 8.B.1:** Limit intrusion of urban development into agricultural areas.
  - **Implementation Program 8.B.a:** Make one of the following findings before approving expansion of identified community boundaries established on the General Plan land use diagrams:
    - (a) the proposed development would not result in reduced productivity or increased costs of an agricultural operation;
    - (b) the proposed development would not contribute to the deterioration of the rural setting, agricultural landscape, and operation practices of the adjacent agricultural areas; or
    - (c) the community's need for the development in the proposed location is so important as to justify an exception to the policies and implementation programs contained within this Element.

- ▲ **Policy 8.B.2:** Protect and encourage productive use of valuable agricultural lands and areas that provide buffers between identified communities.
- ▲ **Policy 8.C.1:** Allow agriculturalists to manage their operations in an efficient, economic manner while minimizing conflict with non-agricultural uses.
  - **Implementation Program 8.C.a:** Apply the provisions of the “Right to Farm” Ordinance (Tuolumne County Ordinance Code, Chapter 5.20) to minimize conflict and resolve disputes between agricultural operations and nearby non-agricultural land uses.
  - **Implementation Program 8.C.b:** Minimize impacts to existing agricultural operations or use and resolve potential conflicts between agricultural operations and new development through conditions of approval made a part of such new development.
  - **Implementation Program 8.C.c:** Require that maintenance of preexisting common fence lines be the joint responsibility of the existing agricultural use and adjacent new development through conditions of approval made a part of such new development.
- ▲ **Policy 8.C.2:** Establish a buffer between agricultural land uses and residential/non-agricultural land uses. It shall be the obligation of the party seeking the land use change to ensure that a sufficient buffer is established between the parcels. The buffer shall favor protection of the agricultural land.
  - **Implementation Program 8.C.d:** Implement the standards for buffer zones between new non-agricultural development and land designated for agricultural use established in Policy 8.A.4.

### Climate Change Element

- ▲ **Policy 18.A.1:** Prepare a Climate Action Plan (CAP), or similar GHG emission reduction plan, that establishes a GHG reduction target consistent with the Senate Bill (SB) 32 goal to reduce statewide GHG emissions to 40 percent below 1990 levels by 2030. The CAP shall identify specific measures to reduce countywide emissions consistent with the established target and will also include adaptation strategies for the County to appropriately adjust to the environmental effects of climate change. Many of the measures in the CAP will overlap with and help implement goals, policies, and implementation programs identified in this General Plan.
- ▲ **Policy 18.A.3:** Continue to implement the policies and strategies identified in the *2016 Final Regional Transportation Plan*, including the Rural Sustainable Strategies.
- ▲ **Policy 18.A.7:** Encourage reduced consumption of fossil fuel energy by promoting alternative transportation methods and encouraging pedestrian oriented development to reduce the use of motor vehicles. See the Transportation Element and the Community Development and Design Element for a detailed listing of policies and implementation programs.

## PROJECT IMPACTS

This section presents a programmatic-level analysis of potential impacts associated with land use and planning 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 3.11-1: Conflict with an Applicable Regional Plan

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The Tuolumne Tomorrow Regional Blueprint and the 2016 RTP are the regional plans that, in addition to the General Plan Update, apply to the County. The General Plan Update includes policies that are designed to be consistent with the Regional Blueprint and the RTP. Therefore, the General Plan Update would not conflict with the Tuolumne Tomorrow Regional Blueprint or the 2016 RTP. Impacts would be **less than significant**.

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The General Plan Update is a policy document intended to guide land use decisions within Tuolumne County's planning area through the year 2040. The General Plan Update promotes well-defined, cohesive, and compact communities, each built around an appropriately-scaled community core and community gathering places. General Plan Update policies, such as Policy 3.A.1, encourage new development in locations that take advantage of existing public infrastructure and services. With compact neighborhoods, auto dependency and demand for new roads would be reduced and transportation options would increase.

The TCTC adopted a population projection of 63,243 residents in Tuolumne County and the City of Sonora by the year 2040 after consideration of the California Department of Finance forecasts, Census population projections, and past TCTC adopted population projections. Although the General Plan Update is based upon the assumption that Tuolumne County and the City of Sonora will reach this projected population, it does not promote the growth of the County's population to that level. In fact, as described in Chapter 2, "Project Description," this projected growth rate is much higher than the rate of growth that has occurred in the unincorporated areas of the County over the past 20 years and is also much higher than projected by some to occur over the next 25 years. For instance, as described in Chapter 2, the California Department of Finance has projected virtually no growth through 2040. The philosophy of the General Plan Update is that the County will be prepared and able to accommodate growth, while adhering to policies that direct growth to identified communities.

As described above in Section 3.11.2, "Regulatory Setting," the 2016 RTP focuses on developing a coordinated and balanced multi-modal transportation system and considers short- and long-range transportation investments and improvements for all transportation modes. The General Plan Update's Transportation Element is intended to complement the improvements envisioned by the 2016 RTP. The environmental impacts of the General Plan Update Transportation Element are addressed throughout Chapter 3 of this Recirculated Draft EIR. Specifically, impacts relating to air quality, energy use, and noise are addressed in Sections 3.3, "Air Quality"; 3.6, "Energy"; 3.8, "Global Climate Change"; 3.12, "Noise"; and 3.16, "Transportation and Circulation." In addition, although overall traffic levels are likely to increase with projected development under the General Plan Update, the General Plan Update includes goals, policies, and implementation programs that would address increases in traffic. In general, development within identified communities reduces vehicle miles traveled (VMT) and associated air pollutant emissions and traffic-related noise as compared to development on sites in the periphery of metropolitan areas.

Projected development under the General Plan Update would be subject to Community Development and Design Element policies and implementation programs aimed at strengthening and balancing vehicle, bicycle, pedestrian, and transit connections in the County. Policies 1.A.4 through 1.A.6 focus growth within identified communities and promote development near transit. Policy 1.E.5 requires subdivisions to provide well-connected streets and pedestrian facilities. Policies 4.B.1 through 4.B.6 promote alternative transportation modes by requiring transportation systems to include alternative modes into the design; expanding and improving pedestrian facilities and bikeways; requiring new development to provide public transit, bicycle, and pedestrian facilities in appropriate locations; maintaining and expanding non-motorized linkages; and actively seeking alternative funding sources for bicycle and pedestrian facilities. Policies 4.C.1 through 4.C.7 promote transit by supporting development of the transit system, working with and encouraging the Tuolumne County Transportation Council, supporting higher density residential and commercial development near transit stops, and supporting street designs that accommodate transit facilities. Policies 18.A.1, 18.A.3, and 18.A.7 reduce VMT and promote alternative modes of transportation by requiring the County to prepare a CAP, implementing the strategies of the 2016 RTP (including the Rural Sustainable Strategies), and promoting alternative

transportation modes to reduce the use of motor vehicles. (See the full policy text, as well as the supporting implementation programs, above under “General Plan Update Policies.”)

These General Plan Update policies and corresponding implementation programs promote mixed-use and infill development, orient growth areas near transit stops and stations, reduce VMT, and promote the development, enhancement, and funding alternate methods of transportation. These policies are aligned with the goals of the 2016 RTP described above. Also consistent with the 2016 RTP, the General Plan Update provides guidance in determining the appropriate or desirable locations for this growth, thereby preventing an unnecessarily scattered pattern of development, which often results in extraordinary demands on public services, above average public service costs and unnecessary and avoidable destruction or degradation of valuable resources. Therefore, implementation of the General Plan Update would not conflict with the Tuolumne Tomorrow Regional Blueprint or the 2016 RTP. This impact is **less than significant**.

### Mitigation Measures

No mitigation is required.

### Impact 3.11-2: Physically Divide an Established Community

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Projected development under the General Plan Update would not physically divide any established communities. Instead, policies and land use changes under the General Plan Update would facilitate and direct growth and expansion of existing identified communities in an efficient and orderly manner. The General Plan Update also includes policies that would minimize potential incompatible land uses in identified communities. Impacts would be **less than significant**.

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The General Plan Update intends to facilitate development within identified communities where public infrastructure and services already exist. Under the General Plan Update, no changes would be made to land use designations that would reduce allowable density on any parcel. Rather, land use changes under the General Plan Update would increase the overall acreage and percentage of Low, Medium, High, Estate, and Rural Residential land use designations, while decreasing Large Lot and Homestead Residential land uses. These land use changes would allow for increased density of dwelling units to be developed where the land use changes would occur, which would generally be in identified communities.

New housing and mixed-use development would be encouraged by Community Development and Design Element policies and supporting implementation programs. For example, Policy 1.A.4 would focus growth in identified communities. Implementation programs supporting Policy 1.A.4 would protect the separation of identified communities by designating the land between identified communities of non-urban uses, maintaining the rural character by using transitional land uses around identified communities, and designating adequate land within and around identified communities to allow growth in those areas. Similarly, Policy 3.A.1 would encourage the siting of new urban development within or adjacent to identified communities to maximize the use of existing infrastructure and encourage logical extension of infrastructure. However, in order to prevent concentration of growth in only a couple communities, Policy 1.A.11 would encourage growth to be dispersed among identified communities. Together, these policies would encourage growth to occur in and near identified communities with the intent of protecting the rural character of the areas outside identified communities.

The General Plan Update also includes policies to minimize potential land use incompatibility. Policy 1.B.1 would protect existing land uses from incompatible land uses. Implementation programs supporting Policy 1.B.1 include designating land around existing non-residential land uses with compatible land uses, designating land uses around existing residential neighborhoods with compatible uses, separating new residential development from incompatible land uses, and considering buffer areas around existing industrial land uses to protect them from encroachment of incompatible land uses. By promoting land use compatibility, the General Plan Update minimizes the potential for allowing an incompatible land use within an identified community. Therefore, established communities would not be physically divided, but instead, growth and expansion would be facilitated and organized in an efficient manner. Impacts would be **less than significant**.

## **Mitigation Measures**

No mitigation is required.

## 3.12 NOISE

This section considers existing noise levels and analyzes the potential noise-related impacts from projected development under the General Plan Update. Impacts relating to noise and vibration generated by construction, traffic, industrial, commercial, agricultural uses, railroads, and airports are addressed. Analysis of existing traffic noise exposure along the major corridors and arterials located in Tuolumne County and potential new noise associated with projected development under the General Plan Update is based on traffic data analysis provided in the Tuolumne County General Plan and Regional Transportation Plan Update Draft EIR Traffic Study (Wood Rodgers 2016).

Several public comments on the Draft EIR related to noise. The concerns expressed in these comments included the noise impacts associated with the encroachment of commercial activity on rural and agricultural land uses, and the effect noise associated with projected development under the General Plan Update would have on existing residents. These concerns are addressed below, as appropriate.

### 3.12.1 Environmental Setting

#### OVERVIEW OF NOISE AND VIBRATION

Noise (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz). In addition to the actual instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress.

One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level ( $L_{eq}$ ). The  $L_{eq}$  is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time. Typically,  $L_{eq}$  is summed over a one-hour period. The maximum instantaneous noise level ( $L_{max}$ ) can be used to describe short noise events (e.g., construction activities, car pass-by). In addition, the community noise equivalent level (CNEL), is typically used for describing ambient noise levels and sources that generate noise over extended periods of time (e.g., roadway noise). The CNEL is a weighted noise level over a 24-hour period that applies a penalty of 5 dB during the evening hours (7:00 p.m. to 10:00 p.m.) and a 10-dB penalty during the nighttime hours (10:00 p.m. to 7:00 a.m.).

The sound pressure level is measured on a logarithmic scale with the 0-dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Decibels cannot be added arithmetically, but rather are added on a logarithmic basis. Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dB. Because of the nature of the human ear, a sound must be about 10 dB greater than the reference sound to be judged as twice as loud. In general, a 3-dB change in community noise levels is noticeable, while 1–2 dB changes generally are not perceived. Quiet suburban areas typically have exterior noise levels in the range of 40–50 dBA, while those along arterial streets are in the 50–60+ dBA range. Normal conversational levels are in the 60–65 dBA range and ambient noise levels greater than that can interrupt conversations.

Noise levels typically attenuate at a rate of 6 dB per doubling of distance from point sources such as industrial machinery (Harris 1979). For example, a person standing 25 feet from an industrial machine may experience noise levels of 75 dBA, while a person standing 50 feet from the same noise source would experience noise levels of 69 dBA, and a person standing 100 feet from the source would experience noise levels of 63 dBA. Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dB per doubling

of distance. Noise from heavily traveled roads, such as the state routes that pass through the County and major County arterials, typically attenuates at about 3 dB per doubling of distance (Harris 1979).

The actual time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the daytime. The day-night average level ( $L_{dn}$ ) recognizes this characteristic by weighting the hourly  $L_{eq}$  over a 24-hour period. The weighting involves the addition of 10 dBA to actual nighttime (10:00 p.m. to 7:00 a.m.) noise levels, accounting for the greater amount of disturbance associated with noise during that time period.

## VIBRATION

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings and is usually measured in inches per second. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration.

High levels of vibration may cause physical personal injury or damage to buildings. However, groundborne vibration levels rarely affect human health. Instead, most people consider groundborne vibration to be an annoyance that can affect concentration or disturb sleep. In addition, high levels of groundborne vibration can damage fragile buildings or interfere with equipment that is highly sensitive to groundborne vibration (e.g., electron microscopes).

In contrast to noise, groundborne vibration is not a phenomenon that most people experience every day. The background vibration velocity level in residential areas is usually 50 RMS or lower which is well below the threshold of perception for humans (human perception is around 65 RMS). Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible.

## SENSITIVE RECEPTORS

Noise level allowances for various types of land uses reflect the varying noise sensitivities associated with those uses. In general, noise-sensitive land uses ("sensitive receptors") are any residence, hospital, school, hotel, library, office, or similar facility where quiet is an important attribute of the environment. Such uses have more stringent noise level allowances than most commercial or agricultural uses that are not subject to impacts such as sleep disturbance. As described in the 1996 Tuolumne County General Plan Noise Element, sensitive receptors include but are not limited to residential development, schools, hospitals, convalescent homes, churches, and libraries. Sensitive receptors most affected by roadway noise are those immediately adjacent to roadways and corridors with high traffic volume, such as State Routes (SRs) 108, 49, and 120, as well as other local high-volume streets such as Mono Way or Tuolumne Road that may experience elevated noise levels.

## EXISTING NOISE LEVELS IN TUOLUMNE COUNTY

The ambient noise environment in Tuolumne County is largely affected by traffic on highways and County roadways, commercial and industrial uses, agricultural uses, railroad operations, and aircraft. The most prominent sources of noise in the project vicinity are motor vehicles (e.g., automobiles, buses, trucks, and motorcycles). Motor vehicle noise is a major influence on noise levels to nearby sensitive receptors (primarily to nearby residences). Motor vehicle noise is of concern because it is characterized by a high number of individual events, which often create a sustained noise level, and because of its proximity to noise sensitive uses. In general, corridors throughout Tuolumne County consist of one or two lanes in each direction with varying speed limits ranging from 35 miles per hour (mph) to 55 mph.

The areas surrounding travel corridors in the County are often characterized by hills. As a consequence, both the corridors and surrounding sensitive noise receptors are located at various heights, which may affect how traffic noise travels and how it is experienced at nearby sensitive receptors. Additionally, the speed limits on the corridors may frequently change due to vehicles needing to slow down around wide turns. Because vehicles may be regularly accelerating and decelerating, this can also be a factor that influences the level of traffic noise at sensitive receptors.

To determine existing noise levels and noise contours along evaluated travel corridors in the County, six weekday evening 15-minute noise measurements were taken using a Rion NL-21 sound level meter on April 24, 2015. The locations of noise measurements were selected to correlate and to be consistent with the traffic data collection study times and locations. These noise measurements provide existing noise levels during the 3:00 p.m. to 6:00 p.m. peak hour travel period. Exhibit 3.12-1 shows the on-site noise measurement locations and Table 3.12-1 identifies the measured noise levels. In addition to noise monitoring, existing traffic noise levels on major roadways were modeled using average daily trip volumes available in the Tuolumne County General Plan and Regional Transportation Plan Update Draft EIR Traffic Study (Wood Rodgers 2016). Table 3.12-2 shows the modeled existing traffic noise levels and associated distance to the 60, 65, and 70 dBA CNEL contour.

**Table 3.12-1 Existing Noise Measurements**

Measurement Number	Measurement Location	Distance (feet) from Nearest Roadway <sup>1</sup>	Sample Time	L <sub>eq</sub> (dBA) <sup>2</sup>
1	Black Hawk Drive and Twain Harte Drive, Twain Harte	25	5:00 pm-5:15 pm	70.6
2	1075 Mono Way, East Sonora (Carl's Jr)	45	5:34 pm-5:49 pm	69.7
3	22540 Parrotts Ferry Road, Columbia (Columbia Elementary School)	35	6:02 pm-6:17 pm	65.1
4	18233 CA-49, Jamestown (Dollar General)	85	6:46 pm-7:01 pm	65.3
5	Tuolumne County Fire Department Chinese Camp Station 61, Chinese Camp	60	7:14 pm-7:29 pm	63.3
6	Mary Laveroni Community Park, Groveland	25	7:51 pm-8:04 pm	66.4

<sup>1</sup> Distance is approximate from the centerline of measured road.

<sup>2</sup> L<sub>eq</sub> refers to equivalent continuous sound pressure level (dB). Refer to Exhibit 3.12.1 for noise measurement locations.

Source: Tuolumne County 2015



Noise Measurement Location

0      2.5      5  
 Miles

N

Source: Prepared by Tuolumne County in 2015

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**Exhibit 3.12-1**

**Noise Monitoring Locations**



**Table 3.12-2 Existing 2015 Noise Contours**

Corridor and Segment		Noise @ 50 feet from Road (dBA CNEL)	Noise Contour (dBA CNEL) Distance in Feet		
			60 dBA	65 dBA	70 dBA
<b>State Route 108</b>					
1	Between Stanislaus County Line and Tulloch Road	70.1	427	198	92
2	Between O'Byrnes Ferry Road and La Grange	71.8	291	135	63
3	Between O'Byrnes Ferry Road and SR 120 (Yosemite Junction)	72.5	324	151	70
4	Between SR 120 and West Junction SR 49	72.4	319	148	69
5	Between South Washington Street/Lime Kiln Road and Mono Way	72.9	347	161	75
6	Between South Washington Street/Lime Kiln Road and Mono Way	73.1	354	164	76
7	Between Mono Way and Hess Avenue	73.1	357	166	77
8	Between Hess Avenue and Peaceful Oak Road	71.9	296	137	64
9	Between Peaceful Oak Road and Mono Way	71.5	277	129	60
10	Between Mono Way and Soulsbyville Road	71.6	359	166	77
11	Between Soulsbyville Road and West Connector Twain Harte Drive	69.1	242	112	52
12	Between West and East Connector Twain Harte Drive	69.0	240	111	52
13	Between East Connector Twain Hart Road and Leisure Drive	69.1	242	112	52
14	Between Leisure Drive and Chief Fuller Road	68.3	171	79	37
15	Between Chief Fuller Road and Lyons Lake Road	66.4	128	59	28
16	Between Lyons Lake Road and West Long Barn Connector	66.2	123	57	26
17	Between West Long Barn Connector and East Long Barn Connector	67.1	178	83	38
18	Between Kennedy Meadows Road and Tuolumne/Mono County Line	58.9	40	19	9
<b>State Route 49</b>					
20	Between South Junction SR 120 and Mariposa County Line	59.1	41	19	9
21	North of North SR 120 Junction	61.8	63	29	14
22	Between SR 49 (Montezuma Junction) and Bell Mooney Road	72.6	331	154	71
23	Between Bell Mooney Road and South Junction Main St	72.8	340	158	73
24	Between South Junction Main Street and Rawhide Road	72.8	340	158	73
25	Between Rawhide Road and Fifth Ave	72.9	344	160	74
26	Between Fifth Ave and Stockton Road/SR 108	73.6	387	180	83
27	Between SR 108 and Fairview Lane (Ponderosa)	70.7	246	114	53
28	Between Fairview Lane and Southgate Drive	70.2	229	106	49
29	Between Southgate Drive and Washington Street	70.3	232	108	50
30	Between Stockton Road and Dodge Street	72.6	330	153	71
31	Between Dodge Street and Snell Street	72.8	341	158	73
32	Between Snell Street and Columbia Way	72.0	301	140	65
33	Between Columbia Way and Old Sonora Columbia Road	71.8	292	136	63
34	Between Old Sonora Columbia Road and Parrotts Ferry Road	71.2	265	123	57
35	Between Parrotts Ferry Road and Von Kleiben Road	67.0	139	65	30
36	Between Von Kleiben Road and Rawhide Road	67.3	147	68	32
37	Between Rawhide Road and Tuttletown Road	66.5	130	60	28
38	Between Tuttletown and Tuolumne/Calaveras County Line	67.4	149	69	32
<b>State Route 120 (Stanislaus County Line-Chinese Camp)</b>					
39	Between Tulloch Road and La Grange Road	70.3	437	203	94
40	Between East Junction 108 and North Junction SR 49	64.2	92	42	20

**Table 3.12-2 Existing 2015 Noise Contours**

Corridor and Segment		Noise @ 50 feet from Road (dBA CNEL)	Noise Contour (dBA CNEL) Distance in Feet		
			60 dBA	65 dBA	70 dBA
41	Between North Junction SR 49 and Jacksonville Road	65.7	114	53	25
42	Between Jacksonville Road and South Junction SR 49	66.9	138	64	30
43	Between South Junction SR 49 and Priest-Coulterville Road	65.8	117	54	25
44	Between Priest-Coulterville Road and Ferretti Road (Groveland Townsite)	66.7	134	62	29
45	Between Ferretti Road (Groveland Townsite) and Old State Highway 120	67.6	152	71	33
46	Between Old State Highway 120 and Hells Hollow Road	66.8	135	63	29
47	Between Hells Hollow Road and Ferretti Road	65.7	115	53	25
48	Between Ferretti Road and Cherry Valley Lake Road	65.5	111	51	24
49	Between Cherry Valley Lake Road and Yosemite Park West Boundary	65.4	109	51	23
<b>Mono Way</b>					
50	West of Sanguinetti Road	63.8	88	41	19
51	Between Sanguinetti Road and Greenley Road	62.6	74	34	16
52	Between Greenley Road and Fir Drive	63.6	87	40	19
53	Between Fir Drive and Tuolumne Road	64.3	96	44	21
54	Between Tuolumne Road and Hess Ave	61.2	60	28	13
55	Between Hess Avenue and Standard Road/Peaceful Oak Drive	61.1	59	27	13
56	Between Standard Road/Peaceful Oak Drive and SR 108	59.0	43	20	9
<b>Parrotts Ferry Road</b>					
60	Between SR 49 and Sawmill Flat Road	64.1	93	43	20
61	Between Sawmill Flat Road and Springfield Drive	62.6	74	35	16
62	Between Springfield Drive and Marble Quarry Drive	62.7	75	35	16
63	Between Marble Quarry Drive and Calaveras County Line	59.8	48	22	10
<b>Tuolumne Road</b>					
75	Between Mono Way and Lambert Lake Road	65.5	115	53	25
76	Between Lambert Lake Road and Hess Avenue	64.8	104	48	22
77	Between Hess Avenue and Wards Ferry Road	64.5	100	46	22
78	Between Wards Ferry Road and Standard Road	64.4	97	45	21
79	Between Standard Road and Woodhams Carne	64.4	98	46	21
80	Between Woodhams Carne and Cherokee Road	64.4	98	45	21
104	Between Tuolumne Road and Mi Wu Street	61.7	65	30	14
105	Between Mi Wu Street and East Avenue	57.4	34	16	7
106	Between East Avenue and SR 108	55.2	24	11	5

Source: Modeled by Ascent Environmental in 2018, based on traffic data provided by Wood Rodgers (2016)

## Highway/Roadway Noise

Streets and highways throughout the County are identified as the most extensive source of mobile noise in the County. There are two east-west state highways in the County: SRs 108 and 120. SR 49 is the only north-south highway in the County. The majority of the identified communities exist on or near these transportation corridors. SRs 108, 120, and 49 are the major transportation routes through the County. A segment of SR 132 traverses the southern edge of Tuolumne County near the shore of the Don Pedro Reservoir and produces traffic noise that would potentially affect nearby residences. None of the state routes are interstates.

## Industrial and Commercial Operations

Mining and timberland production operations are located throughout Tuolumne County. Noise generation within industrial and commercial facilities such as mining or timberland production facilities or from many types of agricultural equipment are controlled by federal and state employee health and safety regulations (e.g., federal Occupational Safety and Health Administration and California Division of Occupational Safety and Health), but exterior noise from such operations may exceed local standards at nearby noise-sensitive land uses. Typical commercial and industrial noise sources include loading dock operations, parking lot activity, on-site equipment (including heating and air conditioning), and heavy truck idling. Other stationary noise sources of concern typically include generators, pumps, air compressors, outdoor speakers, motors, heavy equipment, back up alarms and similar machinery. There is also potential for blasting or demolition noise associated with mining operations.

## Agricultural Operations

Agricultural production is recognized throughout the General Plan Update as vital to Tuolumne County. Some of the more common noise sources associated with farming operations include tractors, harvesting equipment, spray equipment, and stationary power sources, including internal combustion pump engines. Maximum noise levels generated by farm-related tractors typically range from 77 to 85 dB at a distance of 50 feet from the tractor, depending on the horsepower of the tractor and the operating conditions. Due to the seasonal nature of the agricultural industry, there are often extended periods of time when no noise is generated on properties, which are actively being farmed, followed by short-term periods of intensive mechanical equipment usage and corresponding noise generation. These uses generate short-term periods of elevated noise during all hours of the day and night and possess the potential to generate adverse public reaction during intensive farm-related activities.

## Railroads

Tuolumne County is served by the Sierra Railroad which operates between Oakdale, in Stanislaus County, and Standard, in Tuolumne County. The Sierra Railroad currently runs through areas of Jamestown and Sonora, with existing structures and development located roughly 100 feet away from the track centerline. Connections are made with both the Southern Pacific and the Santa Fe Railroads in Oakdale. The Sierra Railroad includes 49 miles of track and has been in operation since 1897. The Sierra Railroad is vital to the local economy. The railroad not only provides the local economy and lumber industry with access to distant markets, but also provides historic rail excursions and scenic opportunities for the film industry. Located along the Sierra Railroad in Jamestown is Railtown 1897 State Historic Park, which includes a functional roundhouse, several steam engines and an inventory of vintage passenger and freight cars. According to data from the Federal Railroad Administration dated March 2015, railroad crossings in Tuolumne County that are currently in use are not crossed more than four times per day and the speed of the trains do not exceed 25 mph at railroad crossings.

## Airports

Two airports are located in Tuolumne County: Columbia Airport and Pine Mountain Lake Airport. Pine Mountain Lake Airport includes both a public use airport as well as a residential use airport. It is located three miles northeast of the town of Groveland, serving Tuolumne County, California, and is the gateway airport for SR 120, the most northern route to Yosemite National Park. The airport is used mostly for general aviation aircraft. Pine Mountain Lake Airport covers 52 acres and has one runway. The runway is 3,625 feet by 50 feet and has an asphalt surface (Tuolumne County 2012).

Columbia Airport covers an area of 356 acres which contains two runways: the first runway is paved asphalt and measures 4,670 feet by 75 feet and the second runway is turf, measuring 2,600 feet by 100 feet. There are approximately 25,000 aircraft operations per year at this airport. General aviation aircraft make up approximately 96 percent of the flight operations, with the remainder comprising about approximately 4 percent air taxi, and 1 percent military aircraft (Tuolumne County 2012). There are over 200 aircraft based at this airport: 95 percent single engine, 2 percent multi-engine, 2 percent helicopters, and 1 percent ultra-light aircraft (Tuolumne County 2012). Columbia Airport is also the home to a California Department of

Forestry and Fire Protection (CAL FIRE) Air Attack Base. The CAL FIRE Air Attack crews respond to fires throughout the area and provide support for fighting wildfires. The base provides initial attack for CAL FIRE Madera-Mariposa-Merced and Amador-El Dorado Units and the Stanislaus National Forest and Yosemite National Park. This area spans north to the town of Plymouth, south to the town of Mariposa, east over the Sierra and west to the Unit's state responsibility area boundary: an initial attack area of approximately 3.6 million acres. Columbia Air Attack Base responds to an average of 150 calls per year (CAL FIRE 2005).

The Tuolumne County Airport Land Use Compatibility Plan, adopted in January 2003, includes calculated 2015 noise contour maps for both the Columbia Airport and Pine Mountain Lake Airport, shown in Exhibits 3.12-2 and 3.12-3.

## 3.12.2 Regulatory Setting

### FEDERAL

#### Federal Interagency Committee on Aviation Noise

The Federal Interagency Committee on Aviation Noise (FICAN) was established in 1993 to assist agencies in providing adequate forums for discussion of public and private sector proposals, identifying needed research, and encouraging the conduct of research and development in these areas.

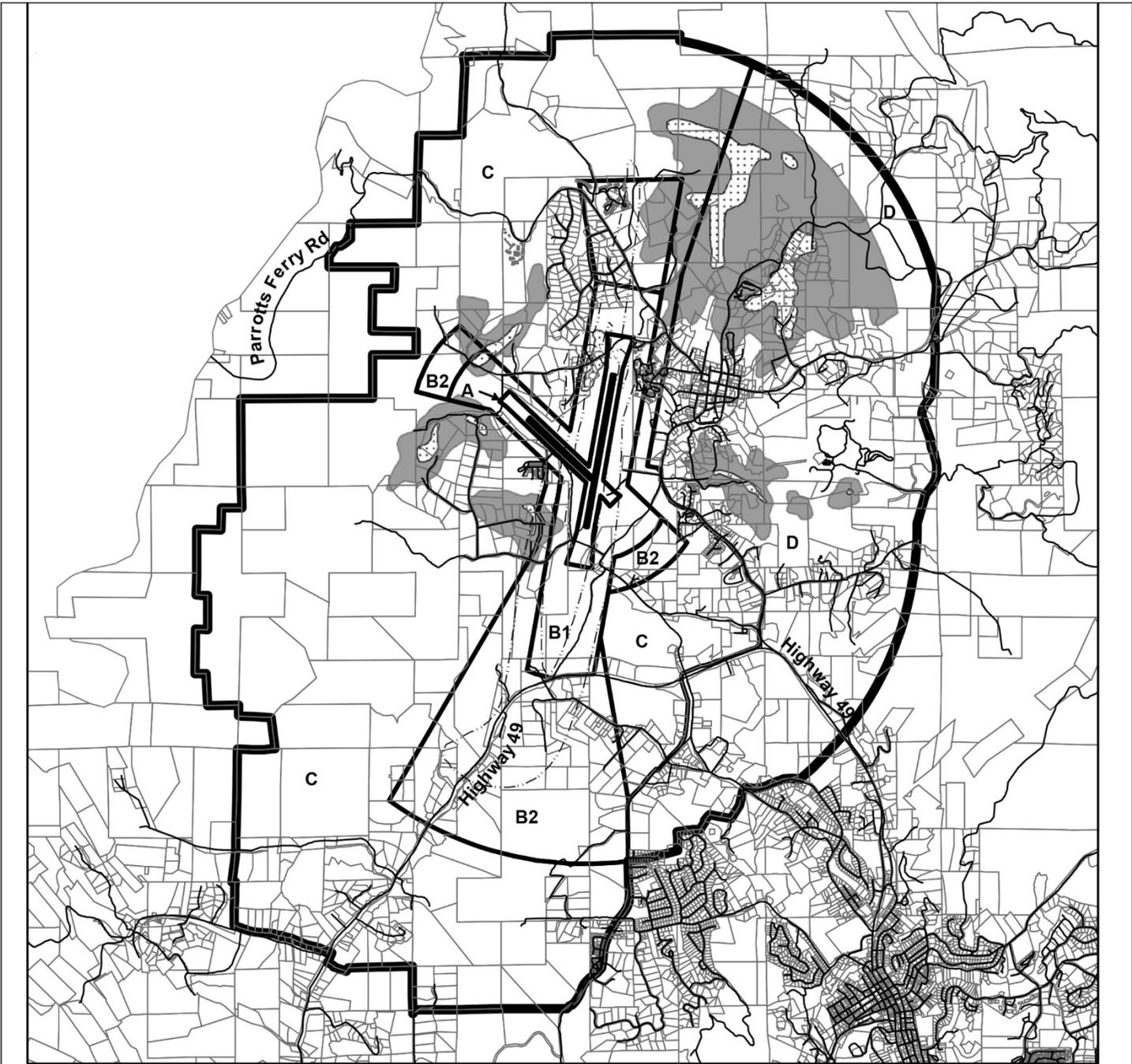
In 1992, the Federal Interagency Committee on Noise published the *Federal Agency Review of Selected Airport Noise Analysis Issues*, which recommended an interim dose-response curve to predict the percent of the exposed population expected to be awakened as a function of the exposure to single-event noise levels expressed in terms of SEL (FICON 1992).

Since the adoption of FICON's interim curve in 1992, substantial field research in the area of sleep disturbance has been completed. In 1997, FICAN published the *Effects of Aviation Noise on Awakenings from Sleep*, which recommends the adoption of a new dose-response curve for predicting awakening (FICAN 1997). The FICAN 1997 curve represents the upper limit of the observed field data, and should be interpreted as predicting the "maximum percent of the exposed population expected to be behaviorally awakened," or the "maximum % awakened" for a given residential population. Based on the 1997 FICAN dose-response curve, 10 percent of the population is estimated to be awakened when the SEL interior noise level is 81 dB. An estimated five to 10 percent of the population is affected when the SEL interior noise level is between 65 and 81 dB, and few sleep awakenings (less than five percent) are predicted if the interior SEL is less than 65 dB (FICAN 1997:5).

#### U.S. Department of Transportation

To address the human response to groundborne vibration, the Federal Transit Administration (FTA) set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. Among these guidelines are the following maximum-acceptable vibration limits:

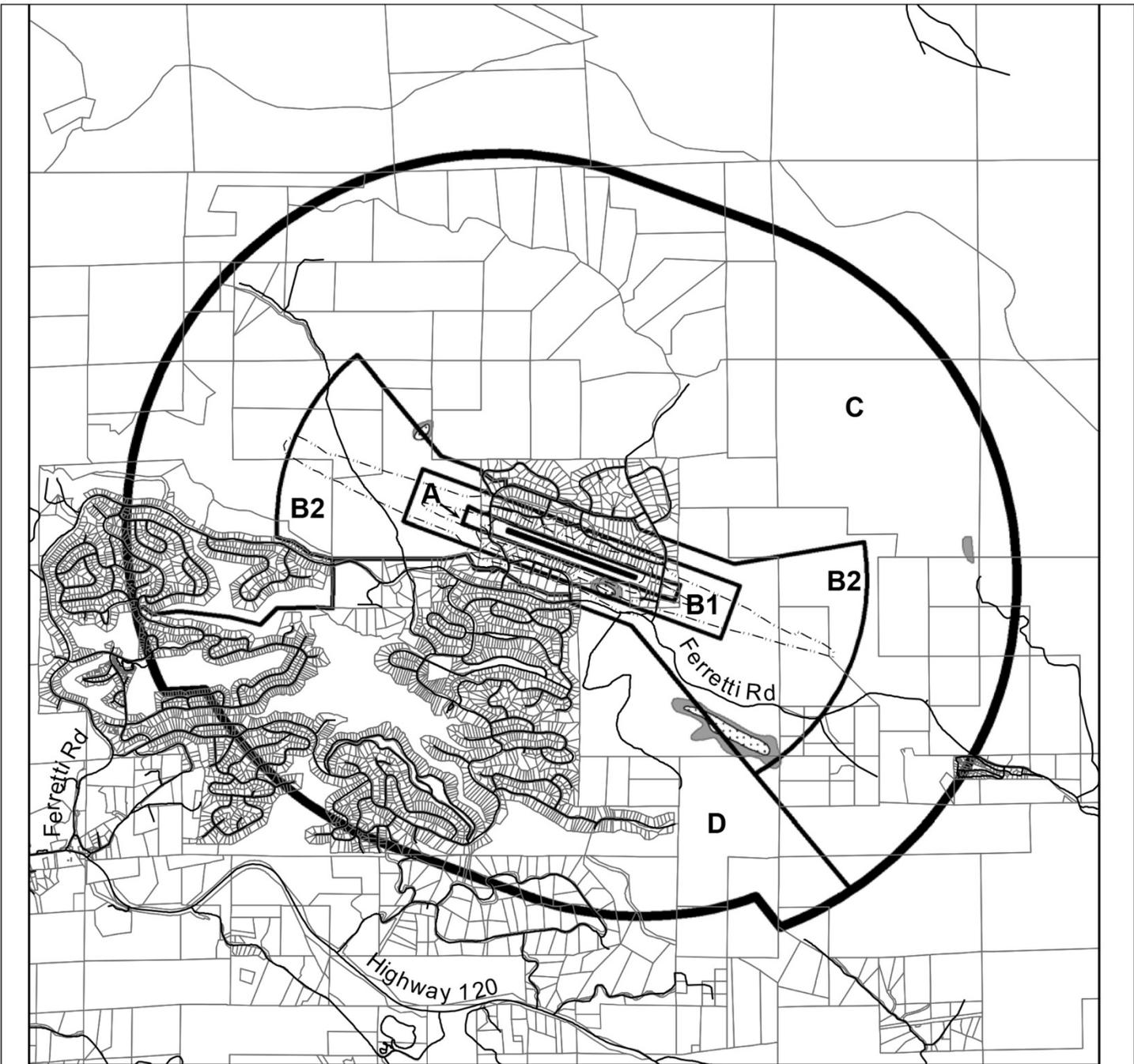
- ▲ 65 VdB, referenced to 1 microinch per second and based on the RMS velocity amplitude, for land uses where low ambient vibration is essential for interior operations (e.g., hospitals, high-tech manufacturing, laboratory facilities);
- ▲ 80 VdB for residential uses and buildings where people normally sleep; and
- ▲ 83 VdB for institutional land uses with primarily daytime operations (e.g., schools, churches, clinics, offices) (FTA 2006).



- |  |  |
|--|--|
| <b>A</b> Runway Protection Zone              | Critical Height Zone Overlay             |
| <b>B1</b> Approach - Departure Zone          | Height Caution Zone Overlay              |
| <b>B2</b> Extended Approach - Departure Zone | Noise Impact Zones CNEL 55, 60, & 65 dBa |
| <b>C</b> Common Traffic Pattern Zone         | Runway                                   |
| <b>D</b> Other Airport Environs              | Roads                                    |

Source: Tuolumne County Ordinance Code, Chapter 18.24

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- |  |  |
|--|--|
| <b>A</b> Runway Protection Zone              |  Critical Height Zone Overlay                |
| <b>B1</b> Approach - Departure Zone          |  Height Caution Zone Overlay                 |
| <b>B2</b> Extended Approach - Departure Zone |  Noise Impact Zones<br>CNEL 55, 60, & 65 dBa |
| <b>C</b> Common Traffic Pattern Zone         |  Runway                                      |
| <b>D</b> Other Airport Environs              |  Roads                                       |

Source: Tuolumne County Ordinance Code, Chapter 18.24

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**Exhibit 3.12-3**

**Pine Mountain Lake Airport Noise Impact Area - 2015**



## STATE

### California Building Code

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, California Building Code. Title 24 is applied to new construction in California and states that interior noise levels attributable to exterior sources shall not exceed 45 dB  $L_{dn}$ /CNEL in any habitable room. An acoustical analysis documenting compliance with the interior sound level standards shall be prepared for structures containing habitable rooms within the CNEL noise contours of 60-dB or greater.

### California Department of Transportation

In 2013, Caltrans published the Transportation and Construction Vibration Guidance Manual. The Manual provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage. Table 3.12-3 below presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

**Table 3.12-3 Caltrans Recommendations Regarding Vibration Levels**

PPV (in/sec)	Effect on Buildings
0.4-0.6	Architectural damage and possible minor structural damage
0.2	Risk of architectural damage to normal dwelling houses
0.1	Virtually no risk of architectural damage to normal buildings
0.08	Recommended upper limit of vibration to which ruins and ancient monuments should be subjected
0.006-0.019	Vibration unlikely to cause damage of any type

Notes: in/sec = inch per second; PPV= peak particle velocity.  
Source: Caltrans 2013

### California General Plan Guidelines

Though not adopted by law, the *State of California General Plan Guidelines 2017*, published by the California Governor's Office of Planning and Research (OPR 2017), provide guidance for the compatibility of projects within areas of specific noise exposure. Acceptable and unacceptable community noise exposure limits for various land use categories have been determined to help guide new land use decisions in California communities. In many local jurisdictions, these guidelines are used to derive local noise standards and guidance. Normally acceptable noise levels for single-family homes are levels below 55 dBA CNEL and conditionally acceptable levels range from 55 dBA to 70 dBA CNEL. For multifamily homes levels below 60 dBA CNEL are normally acceptable and levels between 60 dBA CNEL and 70 dBA CNEL are conditionally acceptable.

## LOCAL

### Tuolumne County General Plan

Tuolumne County's current (1996) Noise Element establishes noise standards for the range of uses present in and around the County. These standards are used to determine whether proposed new development in the County requires mitigation to avoid potential land use conflicts. 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. Specific General Plan Update policies related to noise are identified below under Section 3.12.3, "Impact Analysis."

## Tuolumne County Airport Land Use Compatibility Plan

The Airport Land Use Commission is responsible for reviewing airport and adjacent land use proposals on or near Columbia Airport and Pine Mountain Lake Airport. The criteria and affected areas in proximity to the airports are defined in the Tuolumne County Airport Land Use Compatibility Plan, which was approved in 2003. The goal of the plan is to promote compatibility between the public-use airports within Tuolumne County and the land uses which surround them. The Airport Land Use Compatibility Plan serves as the primary tool for use by the Tuolumne County Airport Land Use Commission in its review of land development proposals at County airports and on surrounding land. The Airport Land Use Compatibility Plan contains policies regarding noise, safety, airspace protection, and aircraft overflights which apply primarily to property located within the airport influence area boundaries associated with the two-County public-use airports. Table 3.12-4 below shows the maximum allowable noise exposure from aircraft-related sources.

**Table 3.12-4 Maximum Allowable Noise Exposure—Aircraft Noise Sources<sup>1</sup>**

Land Use Receptors	Outdoor Activity Areas <sup>2</sup>		Interior Spaces <sup>3</sup>	
	L <sub>dn</sub> /CNEL, dB	L <sub>dn</sub> /CNEL, dB	L <sub>max</sub> , dB <sup>4</sup>	
			Day	Night
Residential – Living Areas	55	45	45	45
Residential – Sleeping Areas	55	40	45	40
Transient Lodging <sup>5</sup>	60	45	–	40
Hospitals, Nursing Homes <sup>6</sup>	60	45	–	40
Churches, Meeting Halls, Office Buildings, Mortuaries	60	45	45	45
Schools Libraries, Museums	60	45	55	55

**Notes:**

- <sup>1</sup> This table applies to noise exposure levels that result from aircraft. For existing receiving land uses, consideration shall be given to the noise exposure from new aviation-related sources during the design and approval of the new aviation-related project. In the case of existing aviation-related sources, projects or consideration of land use changes that lie within the jurisdictional area of the Tuolumne County Airport Land Use Commission, which involve noise-sensitive land uses shall address the noise exposure environment and use these standards as thresholds.
- <sup>2</sup> An outdoor activity area is a location outside of the immediate structure where formal or informal activities are likely to happen. For example, anywhere on an urban residential property could be an outdoor activity area, while the outdoor activity area for a school would be the playground or sporting fields, and for a hospital would be an exterior patio or exercise area. Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land uses.
- <sup>3</sup> For typical construction methods, the reduction in the noise level from the outside of the structure to the inside is approximately 15 dB. In a high noise environment, special construction techniques may be necessary to reduce the interior noise level to the standard.
- <sup>4</sup> L<sub>max</sub> refers to the maximum interior noise level. The design L<sub>max</sub> value shall be established as the maximum aircraft noise level which is exceeded by 10 percent of the aircraft noise events occurring during a typical 24-hour day of aircraft operations. In other words, the L<sub>max</sub> value used in the evaluation shall be determined by eliminating the loudest 10 percent of the aircraft events measured during the sample period, which should be a typical 24-hour day.
- <sup>5</sup> Transient lodging are overnight accommodations usually intended for occupancy by tourists or other short-term paying customers, examples include hotels, motels, or homeless shelters. Transient lodging, as used in this case, does not include bed and breakfast establishments which are located in rural areas, campgrounds or guest ranches.
- <sup>6</sup> These standards only apply to nursing homes or schools that have more than 6 beds or students, respectively.

### 3.12.3 Impact Analysis

#### METHODS OF ANALYSIS

##### Construction

To assess potential short-term (construction-related) noise and vibration impacts, project-generated construction source noise and vibration levels were determined based on methodologies, reference noise levels, and usage factors from the FTA's *Transit Noise and Vibration Impact Assessment* (FTA 2006) and the Federal Highway Administration *Roadway Construction Noise Model User's Guide* (FHWA 2006). Reference levels are noise and vibration levels for specific equipment or activity types that are well documented in the field of acoustics.

## Operations

The assessment of potential long-term (operational) noise impacts from project-generated increases in traffic was conducted using modeling based on the Caltrans traffic noise analysis protocol and the technical noise supplement (Caltrans 2013), as well as project-specific traffic data (Appendix D). To assess this impact, traffic noise levels under existing and existing-plus-project conditions for affected roadway segments were modeled. The modeling conducted does not account for any natural or human-made shielding (e.g., the presence of vegetation, berms, walls, or buildings) and, consequently, represents worst-case noise levels. The traffic analysis evaluated 150 roadway segments. However, the noise analysis only included freeways/highways, major roads, and roads that resulted in noise levels that exceeded applicable thresholds. Roadways that would not experience noise levels above any threshold were not included. See Appendix E for modeling details and assumptions.

Stationary sources, airports, and railroad noise sources were also evaluated. Long-term (operational) impacts were based on reference noise emission levels and measured noise levels for activities and equipment associated with project operation (e.g., heating ventilation and air conditioning units, delivery docks) and standard attenuation rates and modeling techniques. Railroad noise was modeled using modeling and propagation methodologies from FTA.

## GENERAL PLAN UPDATE POLICIES

The General Plan Update includes policies and implementation programs that address the various noise sources in Tuolumne County. The applicable policies and programs are included below.

### Transportation Element

- ▲ **Policy 4.B.1:** Develop a modern transportation system that incorporates alternative transportation modes into the system design.

### Noise Element

- ▲ **Policy 5.A.1:** Evaluate the need of proponents of new development of noise-sensitive land uses proposed adjacent to existing transportation or other noise sources to incorporate noise reduction techniques so that noise levels at the new development are consistent with the exposure threshold standards shown in [General Plan] Figures 5.2 and 5.3. [See Tables 3.12-5 and 3.12-6 in this EIR.]
  - **Implementation Program 5.A.a:** Review new public and private development proposals to determine conformance with the policies and programs of this Noise Element. Determine that noise levels from new development will not exceed the noise level standards for specified land uses included in [General Plan] Figures 5.2, 5.3, 5.4, or 5.5. [See Tables 3.12-5, 3.12-6, 3.12-7, and 3.12-8 in this EIR.] Determine that new development of noise-sensitive land uses in proximity of existing noise sources or land designated on the General Plan land use diagrams as HI, LI, BP, HC, TPZ or MPZ will not be affected by noise levels exceeding the standards of Figure 5.4 [See Table 3.12-7 in this EIR.] For modifications or expansions of existing stationary noise sources that already exceed the standards of Figure 5.4 on lands designated as noise-sensitive uses, Tuolumne County will determine that the new development will not increase the noise level received at the noise-sensitive land uses, or require noise reduction measures, so that the cumulative noise generated from the entire development site is equal to or less than the pre-modification or pre-expansion ambient noise level.
  - **Implementation Program 5.A.b:** Require an acoustical analysis where activities associated with proposed development are likely to produce noise levels exceeding those specified in [General Plan] Figures 5.2, 5.3, 5.4, or 5.5 of [the General Plan Noise] Element. [See Tables 3.12-5, 3.12-6, 3.12-7, and 3.12-8 in this EIR.] The acoustical analysis shall be conducted early in the review process so that the possible effects of noise and noise mitigation can be considered in the project design. The requirements of an acoustical analysis are listed in [General Plan] Figure 5.1.

- ▲ **Policy 5.A.2:** Evaluate if proponents of proposed new transportation noise sources need to submit evidence of noise effects on existing noise-sensitive land uses. Require that new development of transportation noise sources be located and designed so that existing noise-sensitive land uses will not be exposed to noise levels that exceed the standards shown in [General Plan] Figures 5.2, 5.3 or 5.5. [See Tables 3.12-5, 3.12-6, and 3.12-7 in this EIR.] Potential noise effects on any adjacent sensitive wildlife habitat and associated special-status wildlife species should also be considered and minimized, as needed.
  - **Implementation Program 5.A.c:** Institute procedures to enforce noise reduction measures required pursuant to an acoustical analysis during the building permit and construction processes and to monitor compliance with noise reduction measures during operation of the development. Acoustical studies shall meet all requirements detailed in [General Plan] Figure 5.1.
- ▲ **Policy 5.A.3:** Require proponents of proposed development of new stationary noise sources or modifications of existing stationary noise sources to evaluate noise effects on existing nearby noise-sensitive land uses. This policy does not apply to noise levels associated with agricultural operations.
- ▲ **Policy 5.A.4:** Require new development located within the Noise Impact Area diagrams identified by the Tuolumne County Airport Land Use Compatibility Plan to be located and designed so that it will not be affected by noise levels exceeding the standards within the Airport Land Use Compatibility Plan.
- ▲ **Policy 5.A.5:** Require that construction activity and temporary construction impacts do not expose existing noise-sensitive land uses to excessive noise levels. Require all new construction activities to implement all feasible noise-reducing measures as necessary to limit construction noise exposure at receiving occupied land uses to within acceptable County noise levels identified in Figure 5.3. Should nighttime construction activities be required, noise levels shall not exceed night time noise maximum noise levels established for various land uses in [General Plan] Figure 5.3. [See Table 3.12-6 of this EIR.]
  - **Implementation Program 5.A.e:** The County shall ensure that, where residences or other noise sensitive uses are located within 800 feet of construction sites, appropriate measures shall be implemented to limit noise exposure from construction. Specific techniques may include, but are not limited to, restrictions on construction timing, use of sound blankets on construction equipment, and the use of temporary walls and noise barriers to block and deflect noise.
  - **Implementation Program 5.A.f:** Require the use of alternative pile driving techniques, where feasible, if a particular project requires pile driving within 800 feet of sensitive receptors requires pile driving.
  - **Implementation Program 5.A.g:** Require equipment and trucks used for project construction utilize the best available noise control techniques (including mufflers, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds).
  - **Implementation Program 5.A.h:** Require impact equipment (e.g., jack hammers, pavement breakers, and rock drills) used for project construction be hydraulically or electrical powered wherever feasible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatically powered tools is unavoidable, the use of an exhaust muffler on the compressed air exhaust is recommended to lower noise levels from the exhaust by up to about 10 dBA. When feasible, external jackets on the impact equipment should also be incorporated to achieve a further reduction of 5 dBA. Whenever feasible, require the use of quieter procedures, such as drilling rather than impact equipment operation.
  - **Implementation Program 5.A.i:** Locate stationary noise sources as far from sensitive receptors as possible. Stationary noise sources that must be located near existing receptors shall be adequately designed to minimize noise exposure at sensitive receptors such that County noise standards are met.

- ▲ **Policy 5.A.6:** The County shall ensure that, where new residences or other noise sensitive uses would be located adjacent to existing or new railroad tracks that would be in use, such as the Sierra Railroad, appropriate measures shall be implemented to ensure such residences would not be exposed to noise levels that exceed standards in [General Plan] Figure 5.2 [see Table 3.12-5 in this EIR] and applicable vibration levels (e.g., Federal Transit Administration Guidelines). New residential development adjacent to existing railroads shall be required to prepare an acoustical study in accordance with requirements in [General Plan] Figure 5.1 to determine appropriate measures, including distance buffers, site design, building material choice, to ensure compliance with noise and vibration standards.

In addition to the above policies and programs, the General Plan Update includes the following noise standards, as referenced above in the policies and programs. The interior and exterior noise standards (Table 3.12-5) establish maximum transportation noise levels that are allowable for new development in the County. Under the existing General Plan, this matrix is used to determine whether a proposed new use would be compatible with the ambient noise environment in which it is proposed as well as whether the proposed new use would create noise compatibility conflicts with established uses. For the most sensitive uses such as most residences and noise-sensitive institutional uses, 60 dBA  $L_{dn}$  is the maximum allowable exterior level. The maximum allowable interior noise level for all spaces is 45 dBA  $L_{dn}$ .

**Table 3.12-5 Maximum Allowable Noise Exposure—Transportation Noise Sources Excluding Aviation-Related Noise<sup>1</sup>**

Land Use Receptors	Outdoor Activity Areas <sup>2</sup>	Interior Spaces <sup>3</sup>
	$L_{dn}/CNEL$ , dB	$L_{dn}/CNEL$ , dB
Urban Residential	60	45
Transient Lodging <sup>4</sup>	60	45
Hospitals, Nursing Homes <sup>5</sup>	60	45
Churches, Meeting Halls, Office Buildings, Mortuaries	–	45
Schools <sup>5</sup> , Libraries, Museums	–	45

Notes:

- <sup>1</sup> This table applies to noise exposure levels that result from a transportation noise source other than aircraft. For existing receiving land uses, consideration shall be given to the noise exposure from new transportation noise sources during the design and approval of the new transportation project. In the case of existing transportation noise sources, projects or consideration of land use changes involving noise-sensitive land uses shall address the noise exposure environment and use these standards as thresholds.
- <sup>2</sup> An outdoor activity area is a location outside of the immediate structure where formal or informal activities are likely to happen. For example, anywhere on an urban residential property could be an outdoor activity area, while the outdoor activity area for a school would be the playground or sporting fields, and for a hospital would be an exterior patio or exercise area. Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land uses.
- <sup>3</sup> For typical construction methods, the reduction in the noise level from the outside of the structure to the inside is approximately 20-25 dB. In a high noise environment, special construction techniques may be necessary to reduce the interior noise level to the standard.
- <sup>4</sup> Transient lodging are overnight accommodations usually intended for occupancy by tourists or other short-term paying customers, examples include hotels, motels, or homeless shelters. Transient lodging, as used in this case, does not include bed and breakfast establishments which are located in rural areas, campgrounds or guest ranches.
- <sup>5</sup> These standards only apply to nursing homes or schools that have more than 6 beds or students, respectively.

As discussed in Section 3.12.2, “Regulatory Setting,” the Airport Land Use Commission is responsible for reviewing airport and adjacent land use proposals on or near Columbia Airport and Pine Mountain Lake Airport. The criteria and affected areas in proximity to the airports are defined in the Tuolumne County ALUCP, which was approved in 2003. The Airport Land Use Compatibility Plan contains policies regarding noise, safety, airspace protection, and aircraft overflights which apply primarily to property located within the airport influence area boundaries associated with the two-county public-use airports. Table 3.12-6 below shows the maximum allowable noise exposure from aircraft-related sources.

**Table 3.12-6 Maximum Allowable Noise Exposure—Aircraft Noise Sources<sup>1</sup>**

Land Use Receptors	Outdoor Activity Areas <sup>2</sup>		Interior Spaces <sup>3</sup>	
	L <sub>dn</sub> /CNEL, dB	L <sub>dn</sub> /CNEL, dB	L <sub>max</sub> , dB <sup>4</sup>	
			Day	Night
Residential – Living Areas	55	45	45	45
Residential – Sleeping Areas	55	40	45	40
Transient Lodging <sup>5</sup>	60	45	–	40
Hospitals, Nursing Homes <sup>6</sup>	60	45	–	40
Churches, Meeting Halls, Office Buildings, Mortuaries	60	45	45	45
Schools Libraries, Museums	60	45	55	55

**Notes:**

- <sup>1</sup> This table applies to noise exposure levels that result from aircraft. For existing receiving land uses, consideration shall be given to the noise exposure from new aviation-related sources during the design and approval of the new aviation-related project. In the case of existing aviation-related sources, projects or consideration of land use changes that lie within the jurisdictional area of the Tuolumne County Airport Land Use Commission, which involve noise-sensitive land uses shall address the noise exposure environment and use these standards as thresholds.
- <sup>2</sup> An outdoor activity area is a location outside of the immediate structure where formal or informal activities are likely to happen. For example, anywhere on an urban residential property could be an outdoor activity area, while the outdoor activity area for a school would be the playground or sporting fields, and for a hospital would be an exterior patio or exercise area. Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land uses.
- <sup>3</sup> For typical construction methods, the reduction in the noise level from the outside of the structure to the inside is approximately 15 dB. In a high noise environment, special construction techniques may be necessary to reduce the interior noise level to the standard.
- <sup>4</sup> L<sub>max</sub> refers to the maximum interior noise level. The design L<sub>max</sub> value shall be established as the maximum aircraft noise level which is exceeded by 10 percent of the aircraft noise events occurring during a typical 24-hour day of aircraft operations. In other words, the L<sub>max</sub> value used in the evaluation shall be determined by eliminating the loudest 10 percent of the aircraft events measured during the sample period, which should be a typical 24-hour day.
- <sup>5</sup> Transient lodging are overnight accommodations usually intended for occupancy by tourists or other short-term paying customers, examples include hotels, motels, or homeless shelters. Transient lodging, as used in this case, does not include bed and breakfast establishments which are located in rural areas, campgrounds or guest ranches.
- <sup>6</sup> These standards only apply to nursing homes or schools that have more than 6 beds or students, respectively.

Table 3.12-7 below shows the maximum allowable noise exposure from stationary sources.

**Table 3.12-7 Maximum Allowable Noise Exposure—Stationary Noise Sources<sup>1</sup>**

	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly L <sub>eq</sub> , dB <sup>2</sup>	50	45
Maximum level, dB <sup>3</sup>	70	65

**Notes:**

- <sup>1</sup> This table applies to noise exposure as a result of stationary noise sources. For a development project or land use change involving a noise-sensitive land use, the noise from nearby noise sources will be considered during design and approval of the project, or in determining whether the land use change is appropriate. For development projects which may produce noise, land use changes and project review will consider the effects of the noise on possible noise-sensitive land uses. When considering modification or expansion at a site that already produces noise levels which exceed these standards at noise-sensitive land uses, the modification or expansion shall be reviewed to consider if the proposed action will further raise the existing noise levels received at the noise-sensitive land use(s). Noise-sensitive land uses include urban residential land uses, libraries, churches, and hospitals, in addition to nursing homes or schools which have over 6 beds or students, respectively. Transient lodging establishments which are considered noise sensitive land uses include hotels, motels, or homeless shelters, but not bed and breakfast establishments located in rural areas, campgrounds, or guest ranches.
- <sup>2</sup> The sound equivalent level as measured or modeled for a one-hour sample period. The daytime or nighttime value should not be exceeded as determined at the property line of the noise-sensitive land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.
- <sup>3</sup> Similar to the hourly L<sub>eq</sub>, except this level should not be exceeded for any length of time.

Table 3.12-8 below shows the maximum allowable cumulative noise exposure that may result from development of a project. Cumulative noise refers to all noise generated from the entire development site, which could include noise generated from both operational noise sources. The allowable change in cumulative noise exposure depends on the existing ambient noise level without the project.

**Table 3.12-8 Significance of Changes in Cumulative Noise Exposure<sup>1</sup>**

Ambient Noise Level Without Project ( $L_{dn}$ or CNEL) <sup>2</sup>	Significant Impact if Cumulative Level Increases By:
<60 dB	+ 5.0 dB or more
60-65 dB	+ 3.0 dB or more
>65 dB	+ 1.5 dB or more

**Notes:**

<sup>1</sup> These standards shall be applied when considering the noise impacts from projects that could cause a significant increase in the cumulative noise exposure of existing noise-sensitive land uses. If it is likely that existing noise-sensitive land uses could experience these increases in cumulative noise exposure, as measured in CNEL or  $L_{dn}$ , then an acoustical analysis that meets the requirements of Figure 5.1 shall be accomplished and the results considered in project design.

<sup>2</sup> Ambient Noise is defined as the composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Sources: Tuolumne County 1996, FICON1992

## THRESHOLDS OF SIGNIFICANCE

The analysis of noise impacts focuses upon the impact of projected development under the General Plan Update to noise-sensitive land uses within the County and the impact of existing noise sources upon County residents. Projected development under the General Plan Update would result in potentially significant impacts if it would result in any of the following conditions:

- ▲ exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
  - Construction noise: 65 dBA  $L_{max}$  (exterior) during noise sensitive times (between 7 p.m. and 7 a.m.), based on FICAN's 65 dBA SEL level for sleep disturbance but conservatively using  $L_{max}$ , which is more appropriate for construction activities.
    - Transportation noise: Table 3.12-5
    - Stationary noise: Table 3.12-7
    - Aircraft noise: Table 3.12-6
    - Railroad noise and vibration: FTA screening distance of 750 feet from a rail line
- ▲ exposure of persons to or generation of excessive ground borne vibration (i.e., Caltrans-recommended standard of 0.2 PPV inch per second for normal buildings) or ground borne noise levels (i.e., FTA's maximum-acceptable-vibration standard with respect to human response of 65-83 VdB depending on land use);
- ▲ a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, as defined in Table 3.12-8;
- ▲ a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- ▲ for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels; or
- ▲ for a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

## PROJECT IMPACTS

This section presents a programmatic-level analysis of potential impacts associated with noise 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 3.12-1: Expose New Sensitive Land Uses to Traffic Noise

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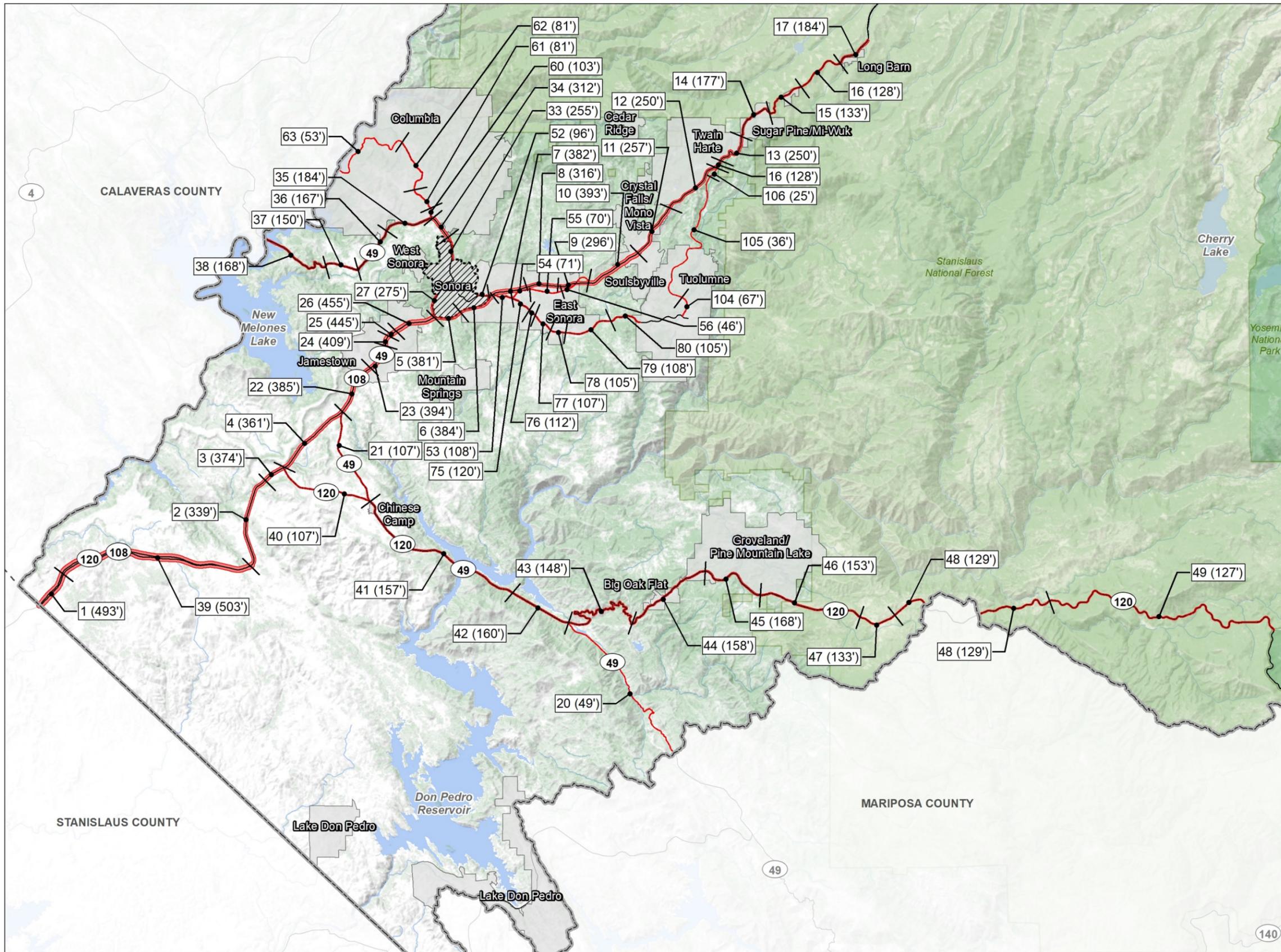
Projected development under the General Plan Update would include the construction of future residences and other noise-sensitive land uses in close proximity to existing transportation noise sources and would be exposed to noise levels exceeding the maximum allowable range. In some cases, roadway noise levels reach 74.7 dBA CNEL and would require new development to achieve an approximate 15 dBA reduction in noise to meet exterior noise standards of 60 dBA CNEL. General Plan Update policies and implementation programs would require new development to conduct site-specific acoustical analysis and include measures to minimize noise exposure and meet County noise standards. However, at the County-wide scale of this analysis, without knowing the specific location, design, orientation, and type of development projects, it cannot be determined with certainty whether adequate noise reduction could be achieved, and this impact would be **significant**.

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Projected development under the General Plan Update would include the development of new residential and other noise-sensitive uses that could be exposed to long-term noise exceeding acceptable levels shown in Table 3.12-5. Potential sources of noise exposure include: (1) traffic on SRs 120, 108, and 49, County-wide expressways arterial roadways, and collector and local roadways; and (2) transportation sources related to operations of commercial, industrial, and agricultural sites that are adjacent to or near noise-sensitive uses.

The General Plan Update lays out a pattern of future growth (projected at 0.6 percent annually) emphasizing intensified land use distribution that encourages the relatively low projected growth in identified communities. Infill and mixed-use are encouraged to take advantage of existing public infrastructure and services. Residential and commercial areas are encouraged to become more compact within identified communities promoting mixed-use and higher density residential development to supply housing demand. With more compact neighborhoods, auto dependency and new roads would be reduced and transportation options would increase. As a result, however, development of infill and mixed-use projects within identified communities and along existing transportation roadways would potentially expose new residences to noise from various roadways as well as from commercial activity. For most sites, the primary generator of noise that could affect noise-sensitive uses would be roadway traffic.

Traffic noise modeling was conducted for the General Plan Update plan horizon (2040). Noise modeling included projected noise levels at 50 feet from roadway segments as well as distances to the 60, 65, and 70 dBA CNEL contours. Exhibit 3.12-4 shows the future (2040) distance to the 60 dBA CNEL contour of all modeled roadways. Table 3.12-9 includes the calculated future noise levels at 50 feet from the roadway, as well as distances to the 60, 65, and 70 dBA CNEL contour for all modeled roadways. Segment numbers in Exhibit 3.13-4 correspond to segment numbers in Table 3.12-9. As shown in Table 3.12-10, with only minor exceptions, traffic noise is expected to increase only slightly along major roadways in the County over the life of the General Plan Update.



- Legend**
- Tuolumne County
  - City of Sonora
  - Community Boundary
  - Noise Contour (60 dba)



Cal-Atlas Basemap  
 Source: Modeled by Ascent Environmental in 2018,  
 based on traffic data provided by Wood Rodgers (2016) G17010093 01 019





**Table 3.12-9 2040 Noise Levels and Contours**

Corridor and Segment		Noise @ 50 feet from Road (dBA CNEL)	Noise Contour (dBA CNEL) Distance in Feet		
			60 dBA	65 dBA	70 dBA
<b>State Route 108</b>					
1	Between Stanislaus County Line and Tulloch Road	71.1	493	229	106
2	Between O'Byrnes Ferry Road and La Grange	72.8	339	157	73
3	Between O'Byrnes Ferry Road and SR 120 (Yosemite Junction)	73.4	374	174	81
4	Between SR 120 and West Junction SR 49	73.2	361	168	78
5	Between South Washington Street/Lime Kiln Road and Mono Way	73.5	381	177	82
6	Between South Washington Street/Lime Kiln Road and Mono Way	73.6	384	178	83
7	Between Mono Way and Hess Avenue	73.5	382	177	82
8	Between Hess Avenue and Peaceful Oak Road	72.3	316	147	68
9	Between Peaceful Oak Road and Mono Way	71.9	296	137	64
10	Between Mono Way and Soulsbyville Road	72.2	393	183	85
11	Between Soulsbyville Road and West Connector Twain Harte Drive	69.5	257	119	55
12	Between West and East Connector Twain Harte Drive	69.3	250	116	54
13	Between East Connector Twain Hart Road and Leisure Drive	69.3	250	116	54
14	Between Leisure Drive and Chief Fuller Road	68.5	177	82	38
15	Between Chief Fuller Road and Lyons Lake Road	66.7	133	62	29
16	Between Lyons Lake Road and West Long Barn Connector	66.4	128	59	28
17	Between West Long Barn Connector and East Long Barn Connector	67.3	184	85	40
18	Between Kennedy Meadows Road and Tuolumne/Mono County Line	60.0	47	22	10
<b>State Route 49</b>					
20	Between South Junction SR 120 and Mariposa County Line	60.2	49	23	11
21	North of North SR 120 Junction	65.3	107	50	23
22	Between SR 49 (Montezuma Junction) and Bell Mooney Road	73.6	385	179	83
23	Between Bell Mooney Road and South Junction Main St	73.6	394	183	85
24	Between South Junction Main Street and Rawhide Road	74.0	409	190	88
25	Between Rawhide Road and Fifth Ave	74.5	445	206	96
26	Between Fifth Ave and Stockton Road/SR 108	74.7	455	211	98
27	Between SR 108 and Fairview Lane (Ponderosa)	71.4	275	128	59
28	Between Fairview Lane and Southgate Drive	70.9	256	119	55
29	Between Southgate Drive and Washington Street	71.6	284	132	61
30	Between Stockton Road and Dodge Street	72.5	323	150	70
31	Between Dodge Street and Snell Street	72.0	299	139	64
32	Between Snell Street and Columbia Way	70.9	256	119	55
33	Between Columbia Way and Old Sonora Columbia Road	70.9	255	118	55
34	Between Old Sonora Columbia Road and Parrotts Ferry Road	72.2	312	145	67
35	Between Parrotts Ferry Road and Von Kleiben Road	68.8	184	86	40
36	Between Von Kleiben Road and Rawhide Road	68.1	167	77	36
37	Between Rawhide Road and Tuttletown Road	67.4	150	69	32
38	Between Tuttletown and Tuolumne/Calaveras County Line	68.2	168	78	36

**Table 3.12-9 2040 Noise Levels and Contours**

Corridor and Segment		Noise @ 50 feet from Road (dBA CNEL)	Noise Contour (dBA CNEL) Distance in Feet		
			60 dBA	65 dBA	70 dBA
<b>State Route 120 (Stanislaus County Line-Chinese Camp)</b>					
39	Between Tulloch Road and La Grange Road	71.2	503	233	108
40	Between East Junction 108 and North Junction SR 49	65.3	107	50	23
41	Between North Junction SR 49 and Jacksonville Road	67.8	157	73	34
42	Between Jacksonville Road and South Junction SR 49	67.9	160	74	34
43	Between South Junction SR 49 and Priest-Coulterville Road	67.4	148	69	32
44	Between Priest-Coulterville Road and Ferretti Road (Groveland Townsite)	67.8	158	73	34
45	Between Ferretti Road (Groveland Townsite) and Old State Highway 120	68.2	168	78	36
46	Between Old State Highway 120 and Hells Hollow Road	67.6	153	71	33
47	Between Hells Hollow Road and Ferretti Road	66.7	133	62	29
48	Between Ferretti Road and Cherry Valley Lake Road	66.5	129	60	28
49	Between Cherry Valley Lake Road and Yosemite Park West Boundary	66.4	127	59	27
<b>Mono Way</b>					
50	West of Sanguinetti Road	63.7	88	41	19
51	Between Sanguinetti Road and Greenley Road	62.7	76	35	16
52	Between Greenley Road and Fir Drive	64.3	96	44	21
53	Between Fir Drive and Tuolumne Road	65.1	108	50	23
54	Between Tuolumne Road and Hess Ave	62.4	71	33	15
55	Between Hess Avenue and Standard Road/Peaceful Oak Drive	62.2	70	32	15
56	Between Standard Road/Peaceful Oak Drive and SR 108	59.5	46	21	10
<b>Parrotts Ferry Road</b>					
60	Between SR 49 and Sawmill Flat Road	64.7	103	48	22
61	Between Sawmill Flat Road and Springfield Drive	63.1	81	37	17
62	Between Springfield Drive and Marble Quarry Drive	63.2	81	37	17
63	Between Marble Quarry Drive and Calaveras County Line	60.4	53	25	11
<b>Tuolumne Road</b>					
75	Between Mono Way and Lambert Lake Road	65.8	120	56	26
76	Between Lambert Lake Road and Hess Avenue	65.3	112	52	24
77	Between Hess Avenue and Wards Ferry Road	65.0	107	50	23
78	Between Wards Ferry Road and Standard Road	64.9	105	49	23
79	Between Standard Road and Woodhams Carne	65.0	108	50	23
80	Between Woodhams Carne and Cherokee Road	64.9	105	49	23
104	Between Tuolumne Road and Mi Wu Street	62.0	67	31	14
105	Between Mi Wu Street and East Avenue	57.9	36	17	8
106	Between East Avenue and SR 108	55.4	25	11	5
Source: Modeled by Ascent Environmental in 2018, based on traffic data provided by Wood Rodgers (2016)					

The General Plan Update includes policies and implementation programs that address the placement of new receptors near transportation noise sources as well as the development of new transportation noise sources. Specifically, Policy 5.A.1 and Implementation Program 5.A.a requires all new development of noise

sensitive land uses in close proximity to existing transportation noise sources to incorporate noise reduction techniques so that noise levels at the new development are consistent with the County's noise standards, as shown in Table 3.12-5. Further, Implementation Programs 5.A.b and 5.A.c would require an acoustical analysis to be prepared prior to the approval of new sensitive land uses or new noise sources (e.g., roadway extension) to ensure that the appropriate design considerations would be included in the development to minimize noise exposure at the new or existing receptors. Regarding new noise sources, policy 5.A.2 would require the proponents of new transportation noise sources to submit evidence of noise effects on existing noise-sensitive land uses for County review prior to project approval. This policy further requires that new development of transportation noise sources be located and designed so that existing noise-sensitive land uses would not be exposed to noise levels that exceed County noise standards (Table 3.12-5).

Implementation of these policies and programs would ensure that projects proposed in noise environments that potentially exceed acceptable standards would be evaluated and that appropriate sound attenuation techniques would be implemented on a case-by-case basis. Depending on what is proposed and the location and source of noise, sound attenuation techniques may include site design to shield noise-sensitive uses from noise, special building standards to reduce interior noise, or the use of barriers to reduce exterior noise. However, although these policies and programs would require all new development to conduct the appropriate acoustical studies and include measures to reduce noise exposure to the extent feasible, given that roadway noise exceeds 70 dBA CNEL in several places, an approximate 15-dB noise reduction may be necessary in some locations (e.g., SR 49). Depending on location of new receptors in proximity to roadways, and the specific constraints of the site and available noise reduction measures, achieving an exterior noise level of 60 dBA CNEL may not be feasible in all cases. For example, when the roadway is elevated above a residence, barriers may be tall enough to attenuate noise. Thus, it is possible that new development located in close proximity to existing major roadways could be exposed to noise levels that exceed County noise standards. This impact would be **significant**.

### Mitigation Measures

No mitigation is available.

#### **Significance after Mitigation**

Applicable policies and programs have been included that would require individual development to evaluate noise levels at existing and new sensitive receptors. Thus, at the General Plan level, no additional policies or programs are available, and individual projects would be evaluated during subsequent discretionary review. Because no mitigation and no additional policies or programs are available, this impact would be **significant and unavoidable**.

### **Impact 3.12-2: Expose Existing Sensitive Receptors to Traffic-Noise Increases**

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Projected development under the General Plan Update would increase traffic and associated noise levels along area highways and roadways in Tuolumne County, thereby exposing existing land uses to increased traffic noise. Within the General Plan Update's 2040 planning horizon, receptors along County roadways could experience noise level increases that exceed thresholds. Transportation-related policies aim to reduce automobile use and increase the use of alternatives modes of transit. Traffic noise would still result in a 3 dB increase on one County road segment. While this is a very limited area, compared to the overall County, that would experience this type of noise increase, this impact would be **significant**.

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Projected development under the General Plan Update to accommodate the relatively minor amount of population growth project to occur in the County, in addition to regional growth, would increase noise along area roadways over the life of the General Plan Update. Table 3.12-10 compares calculated noise levels along major roadways in the County under existing conditions to those that could occur with traffic levels associated with projected development under the General Plan within the 2040 planning horizon. To provide a point of comparison for existing and future noise conditions, noise levels were calculated at a distance of 50 feet from the roadway centerline. Noise levels at receptors farther away from roadway noise sources, or in locations with intervening topography, vegetation, or structures, would be lower than shown in the table.

**Table 3.12-10 Comparison of Existing and Future Noise Levels Along Road Segments**

Corridor and Segment		Noise (dBA CNEL) @ 50 feet from Road		
		Existing (2015)	Future (2040)	Change
<b>State Route 108</b>				
1	Between Stanislaus County Line and Tulloch Road	70.1	71.1	+0.9
2	Between O'Byrnes Ferry Road and La Grange	71.8	72.8	+1.0
3	Between O'Byrnes Ferry Road and SR 120 (Yosemite Junction)	72.5	73.4	+0.9
4	Between SR 120 and West Junction SR 49	72.4	73.2	+0.8
5	Between South Washington Street/Lime Kiln Road and Mono Way	72.9	73.5	+0.6
6	Between South Washington Street/Lime Kiln Road and Mono Way	73.1	73.6	+0.5
7	Between Mono Way and Hess Avenue	73.1	73.5	+0.4
8	Between Hess Avenue and Peaceful Oak Road	71.9	72.3	+0.4
9	Between Peaceful Oak Road and Mono Way	71.5	71.9	+0.4
10	Between Mono Way and Soulsbyville Road	71.6	72.2	+0.6
11	Between Soulsbyville Road and West Connector Twain Harte Drive	69.1	69.5	+0.4
12	Between West and East Connector Twain Harte Drive	69.0	69.3	+0.3
13	Between East Connector Twain Hart Road and Leisure Drive	69.1	69.3	+0.2
14	Between Leisure Drive and Chief Fuller Road	68.3	68.5	+0.2
15	Between Chief Fuller Road and Lyons Lake Road	66.4	66.7	+0.3
16	Between Lyons Lake Road and West Long Barn Connector	66.2	66.4	+0.3
17	Between West Long Barn Connector and East Long Barn Connector	67.1	67.3	+0.2
18	Between Kennedy Meadows Road and Tuolumne/Mono County Line	58.9	60.0	+1.1
<b>State Route 49</b>				
20	Between South Junction SR 120 and Mariposa County Line	59.1	60.2	+1.1
21	North of SR 120 Junction	61.8	65.3	+3.4
22	Between SR 49 (Montezuma Junction) and Bell Mooney Road	72.6	73.6	+1.0
23	Between Bell Mooney Road and South Junction Main St	72.8	73.8	+1.0
24	Between South Junction Main Street and Rawhide Road	72.8	74.0	+1.2
25	Between Rawhide Road and Fifth Ave	72.9	74.5	+1.7
26	Between Fifth Ave and Stockton Road/SR 108	73.6	74.7	+1.0
27	Between SR 108 and Fairview Lane (Ponderosa)	70.7	71.4	+0.7
28	Between Fairview Lane and Southgate Drive	70.2	70.9	+0.7
29	Between Southgate Drive and Washington Street	70.3	71.6	+1.3
30	Between Stockton Road and Dodge Street	72.6	72.5	-0.1
31	Between Dodge Street and Snell Street	72.8	72.0	-0.9
32	Between Snell Street and Columbia Way	72.0	70.9	-1.1
33	Between Columbia Way and Old Sonora Columbia Road	71.8	70.9	-0.9
34	Between Old Sonora Columbia Road and Parrotts Ferry Road	71.2	72.2	+1.1
35	Between Parrotts Ferry Road and Von Kleiben Road	67.0	68.8	+1.8
36	Between Von Kleiben Road and Rawhide Road	67.3	68.1	+0.8
37	Between Rawhide Road and Tuttletown Road	66.5	67.4	+0.9
38	Between Tuttletown and Tuolumne / Calaveras County Line	67.4	68.2	+0.8
<b>State Route 120 (Stanislaus County Line-Chinese Camp)</b>				
39	Between Tulloch Road and La Grange Road	70.3	71.2	+0.9

**Table 3.12-10 Comparison of Existing and Future Noise Levels Along Road Segments**

Corridor and Segment		Noise (dBA CNEL) @ 50 feet from Road		
		Existing (2015)	Future (2040)	Change
40	Between East Junction 108 and North Junction SR 49	64.2	65.3	+1.0
41	Between North Junction SR 49 and Jacksonville Road	65.7	67.8	+2.1
42	Between Jacksonville Road and South Junction SR 49	66.9	67.9	+1.0
43	Between South Junction SR 49 and Priest-Coulterville Road	65.8	67.4	+1.5
44	Between Priest-Coulterville Road and Ferretti Road (Groveland Townsite)	66.7	67.8	+1.1
45	Between Ferretti Road (Groveland Townsite) and Old State Highway 120	67.6	68.2	+0.6
46	Between Old State Highway 120 and Hells Hollow Road	66.8	67.6	+0.8
47	Between Hells Hollow Road and Ferretti Road	65.7	66.7	+0.9
48	Between Ferretti Road and Cherry Valley Lake Road	65.5	66.5	+1.0
49	Between Cherry Valley Lake Road and Yosemite Park West Boundary	65.4	66.4	+1.0
<b>Mono Way</b>				
50	West of Sanguinetti Road	63.8	63.7	-0.1
51	Between Sanguinetti Road and Greenley Road	62.6	62.7	+0.2
52	Between Greenley Road and Fir Drive	63.6	64.3	+0.6
53	Between Fir Drive and Tuolumne Road	64.3	65.1	+0.8
54	Between Tuolumne Road and Hess Ave	61.2	62.4	+1.2
55	Between Hess Avenue and Standard Road/Peaceful Oak Drive	61.1	62.2	+1.1
56	Between Standard Road/Peaceful Oak Drive and SR 108	59.0	59.5	+0.5
<b>Parrotts Ferry Road</b>				
60	Between SR 49 and Sawmill Flat Road	64.1	64.7	+0.6
61	Between Sawmill Flat Road and Springfield Drive	62.6	63.1	+0.5
62	Between Springfield Drive and Marble Quarry Drive	62.7	63.2	+0.4
63	Between Marble Quarry Drive and Calaveras County Line	59.8	60.4	+0.7
<b>Tuolumne Road</b>				
75	Between Mono Way and Lambert Lake Road	65.5	65.8	+0.3
76	Between Lambert Lake Road and Hess Avenue	64.8	65.3	+0.5
77	Between Hess Avenue and Wards Ferry Road	64.5	65.0	+0.5
78	Between Wards Ferry Road and Standard Road	64.4	64.9	+0.5
79	Between Standard Road and Woodhams Carne	64.4	65.0	+0.6
80	Between Woodhams Carne and Cherokee Road	64.4	64.9	+0.5
104	Between Tuolumne Road and Mi Wu Street	61.7	62.0	+0.2
105	Between Mi Wu Street and East Avenue	57.4	57.9	+0.5
106	Between East Avenue and SR 108	55.2	55.4	+0.2

Source: Modeled by Ascent Environmental in 2018, based on traffic data provided by Wood Rodgers (2016)

As Table 3.12-10 indicates, traffic associated with projected development under the General Plan Update (through 2040) would increase noise along many of the roadways and would result in a slight decrease on some roadways. According to the noise contours depicted in Exhibit 3.12-4 and Table 3.12-9, noise levels along the edges of many County roadways currently exceed the normally acceptable range for certain uses. Of all roadway segments examined (shown above in Table 3.12-10) segment 21, SR 49, north of SR 120

junction would experience a 3.4 dB increase, which would be considered substantial. In all other cases, traffic noise increases are less than 3 dB and would not be noticeable.

The Transportation Element of the General Plan Update includes policies and implementation programs that would encourage alternative modes of transportation that could help to alleviate some traffic and associated noise increases. Policy 4.B.1 would encourage the County to develop a modern transportation system that incorporates alternative transportation modes into the system design. Associated implementation programs set level of service standards, require the County to consider bicyclists, pedestrians, and transit users for roadways improvement projects, and to provide multi-modal access to activity centers.

Although the above-mentioned policies and programs could result in some reductions in traffic and associated traffic noise levels, specific alternative transportation improvements have not been identified at this time. Thus, it cannot be determined as to what level of traffic would be reduced or what facilities would receive the alternative transportation improvements. It should further be noted that the traffic noise modeling represents a noise levels for existing (2015) and future (2040) conditions, representing two snapshots in time. Development within the County would occur gradually over the 20-year plan horizon, consistent with the projected 0.6-percent annual growth rate, as would the increase in traffic noise. Thus, existing receptors would not experience drastic noise increases. Nonetheless, based on the modeling conducted, a substantial increase in traffic noise would occur on one County segment and this impact would be **significant**.

### Mitigation Measures

No mitigation is available.

#### Significance after Mitigation

All applicable policies and programs have been considered and included in the General Plan Update. Because no additional policies or programs and no mitigation are available, this impact would be **significant and unavoidable**.

### Impact 3.12-3: Expose Sensitive Receptors to Construction Noise Levels That Exceed Applicable Standards

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Construction of individual projects under the General Plan Update could produce noise levels ranging from 90.9 to 96.6 dBA  $L_{max}$  at 50 feet from the source. Depending the location, intensity, and timing of future construction activities, existing or new sensitive receptors could be exposed to disruptive nighttime construction activity. General Plan Update policies would require construction activities to implement all available noise reducing measures but would not ensure nighttime noise levels would not exceed thresholds in all cases. This impact would be **significant**.

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Projected development under the General Plan Update would generate temporary noise level increases on and adjacent to individual construction sites. Since there are no specific plans or time scales for individual development projects, it is not possible to determine exact noise levels, locations, or time period for construction. However, construction noise would be highest and of the longest duration adjacent to sites where more future development/redevelopment is anticipated to occur. As discussed previously, the General Plan Update would encourage infill and mixed-use development in close proximity to the identified communities. In such areas, considerable demolition and construction activity may occur over the life of the General Plan Update. Construction activities typically occur during daytime hours, when people are less sensitive to noise and, therefore, this analysis is focused on nighttime construction activity that has the potential to disturb people while sleeping.

Construction noise can be characterized based on the type of activity and associated equipment needed and, in this analysis, is evaluated by considering noise levels associated with site preparation/foundation work, utility improvements (e.g., trenching, pipe/transmission line installation), roadway improvements (e.g.,

grading, paving), and vertical construction (e.g., residential, commercial, or other structures), with and without pile driving. Reference noise levels for typical construction equipment required for these activities are shown below in Table 3.12-11. Assuming simultaneously operating equipment and typical reference noise levels for construction equipment, representative noise levels for the various types of construction activity are shown below in Table 3.12-12.

**Table 3.12-11 Noise Levels from Construction Equipment**

Equipment Type	Typical Noise Level ( $L_{max}$ dBA) @ 50 feet
Backhoe	80
Concrete Mixer	85
Compactor	80
Crane/Lift	85
Dozer	85
Dump Truck	84
Excavator	85
Flat Bed Truck	84
Front End Loader	80
Generator	70
Grader	85
Impact Pile Driver	95
Paver	89
Roller	85
Pickup Trucks	55

Note: Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacture-specified noise levels for each piece of heavy construction equipment.  
Source: FTA 2006

**Table 3.12-12 Noise Levels from Construction Activities**

Construction Activity	Noise Level ( $L_{eq}$ dBA) @ 50 feet	Noise Level ( $L_{max}$ dBA) @ 50 feet
Site Preparation/Foundation Work	87.5	91.5
Building Construction	86.2	90.9
Building Construction with Pile Driving	90.5	96.6
Roadway Construction/Improvements	87.2	91.1
Utility Installation/Improvements	88.1	92.1

Note: Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacture-specified noise levels for each piece of heavy construction equipment.  
Source: FTA 2006

Based on reference noise levels for typical construction equipment and activities, building construction noise without pile driving could range from 86.2 dBA  $L_{eq}$  to 90.9 dBA  $L_{max}$  (at 50 feet from the source) and with pile driving could range from 90.6 dBA  $L_{eq}$  to 96.6 dBA  $L_{max}$ . Refer to Appendix E for modeling inputs and results.

Noise levels from point sources such as construction sites typically attenuate at a rate of about 6 dBA per doubling of distance from the source. Therefore, considering building construction noise of 96.6 dBA  $L_{max}$ , areas within 1,908 feet of construction site with heavy-duty equipment may be exposed to noise levels exceeding 65 dBA  $L_{max}$ . In addition, some construction work, such as utility installation and roadway

improvements may occur during nighttime hours, as is typical with this type of construction, to reduce traffic impacts, and could expose existing or proposed future sensitive receptors to noise levels that may disrupt sleep and exceed applicable exterior construction noise threshold of 65 dBA  $L_{max}$ .

The General Plan Update includes Policy 5.A.5 and associated implementation programs that specifically require all construction activities to implement noise-reducing measures to limit noise exposure at receiving land uses. Further, implementation programs require construction contractors to use the best available noise control techniques, including specific measures such as mufflers, intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds, restrictions to construction timing, sound blankets, and the use of temporary sound barriers to minimize construction noise. However, Implementation Program 5.A.e, only requires additional study for activities occurring within 800 feet of a sensitive receptor, whereas noise modeling indicates that areas within approximately 1,900 feet of a construction site could be exposed to noise levels exceeding County standards.

Although these policies and implementation programs would require individual construction contractors to include numerous noise-reducing techniques and minimize noise at receiving land uses, at this time the location, intensity, and timing of future construction activities, as well as relative noise level at nearby receptors is unknown. Also, the distance stated in Implementation Program 5.A.e is not adequate to minimize exceedances of County noise standards. Therefore, it cannot be determined if noise levels would exceed applicable standards at nearby receptors, and this impact would be **significant**.

## Mitigation Measures

### Mitigation Measure 3.12-3a: Establish Construction Noise Standards

The following revision to General Plan Update Policy 5.A.5 is recommended to reduce noise impacts from construction as follows:

- ▲ **Policy 5.A.5:** Require that construction activity and temporary construction impacts do not expose existing noise-sensitive land uses to excessive noise levels. Require all new construction activities to implement all feasible noise-reducing measures as necessary to limit construction noise exposure at receiving occupied land uses to within acceptable County noise levels identified in Figure 5.3. Should nighttime construction activities be required (between the hours of 7 p.m. and 7 a.m.), exterior noise levels shall not exceed 65 dBA  $L_{max}$ , based on FICAN's 65 dBA SEL level for sleep disturbance (but conservatively using  $L_{max}$ , which is more appropriate for construction activities). ~~night time noise maximum noise levels established for various land uses in [General Plan] Figure 5.3, [See Table 3.12-5 of this EIR.]~~

### Mitigation Measure 3.12-3b: Increase Construction Noise Buffer

The following revision to General Plan Implementation Program 5.A.e is recommended to increase the distance construction activities are allowed from sensitive uses before additional measures are required:

- **Implementation Program 5.A.e:** The County shall ensure that, where residences or other noise sensitive uses are located within ~~800~~1,900 feet of construction sites, appropriate measures shall be implemented to limit noise exposure from construction. Specific techniques may include, but are not limited to, restrictions on construction timing, use of sound blankets on construction equipment, and the use of temporary walls and noise barriers to block and deflect noise.

#### Significance after Mitigation

Implementation of Mitigation Measures 3.12-3a would help minimize potential sleep disturbance associated with nighttime construction noise. Implementation of Mitigation Measure 3.12-3b would increase the distance construction activities are allowed from sensitive uses before additional noise-reducing measures are required. At the General Plan Update level, policies and implementation programs have been included that would ensure individual construction activities incorporate all available and feasible measures to reduce noise exposure. However, at the program-level scale of this analysis individual construction activities and associated noise

exposure at receiving land uses cannot be determined. Future development would be subject to subsequent discretionary review by Tuolumne County and would be required to comply with above mentioned construction noise policies and any other at that time. All applicable policies and programs have been considered and included in the General Plan Update. At the General Plan Update level and feasible mitigation measures applied, no further mitigation is available, and this impact would be **significant and unavoidable**.

### Impact 3.12-4: Expose Sensitive Receptors to Construction Vibration Levels That Exceed Applicable Standards

Projected development under the General Plan Update could produce vibration levels that could potentially affecting adjacent sensitive land uses. Such vibration could cause temporary disturbance to nearby receptors. These impacts would be **significant**.

Construction-related vibration has the potential to damage structures, cause cosmetic damage (e.g., crack plaster), or disrupt the operation of vibration-sensitive equipment. Vibration can also be a source of annoyance to individuals who live or work close to vibration-generating activities. Heavy construction operations can cause substantial vibration near the source. As shown in Table 3.12-13, the highest impact caused by equipment such as pile drivers or large bulldozers can generate vibrations of 1.518 to 0.089 inches per second of PPV at a distance of 25 feet. Regarding disruptive vibration levels, pile drivers can result in vibration-noise levels of up to 112 VdB and large dozers in levels of up to 87 VdB. In addition, similar to construction noise, vibration levels would be variable depending on the type of construction project and related equipment use. Reference vibration levels for typical impact equipment are shown in Table 3.12-13.

**Table 3.12-13 Construction Equipment Vibration Levels**

Equipment		Peak Particle Velocity (PPV) at 25 Feet (Inches per Second)	Root Mean Square at 25 Feet (VdB)
Pile Driver (Impact)	Upper Range	1.518	112
	Typical	0.644	104
Pile Driver (Sonic)	Upper Range	0.734	105
	Typical	0.170	93
Vibratory Roller		0.210	95
Blasting		1.130	109
Clam Shovel Drop (Slurry Wall)		0.202	94
Hydrol Mill (Slurry Wall)	In Soil	0.008	66
	In Rock	0.017	75
Large Bulldozer		0.089	87
Caisson Drilling		0.089	87
Loaded Trucks		0.076	86
Jackhammer		0.035	79
Small Bulldozer		0.003	58

Source: FTA 2006

Typical project construction activities, such as the use of jackhammers, blasting, other high-power or vibratory tools, compactors, and tracked equipment, may also generate substantial vibration (i.e., greater than 0.2 inch per second PPV) in the immediate vicinity, typically within 15 feet of the equipment.

Some specific construction activities result in higher levels of vibration. Pile driving and blasting have the potential to generate the highest vibration levels and are the primary concern for structural damage when it

occurs in close proximity to structures. Vibration levels generated by blasting activities would vary depending on project conditions, such as soil conditions, construction methods and equipment used.

When considering new construction, blasting generates the highest vibration levels and is, therefore, of greatest concern when evaluating construction-related vibration impacts. Based on FTA's recommended procedure for applying a propagation adjustment to reference levels for blasting vibration levels could exceed the threshold of significance of 0.2 inch per second PPV for structural damage within 85 feet of blasting activities (refer to Appendix E for modeling details). Regarding vibration annoyance, 65 VdB is conservatively used in this analysis, as it is unknown where construction activity would take place and what land use types could be affected. Based on FTA's recommended procedure for applying propagation adjustments to reference levels for blasting, vibration levels could exceed threshold of significance within 730 feet of a sensitive land use (refer to Appendix E for modeling details).

The General Plan Update includes two implementation programs that specifically address construction vibration levels. Implementation Program 5.A.f requires the use of alternative pile driving techniques, and Implementation Program 5.A.h requires that impact equipment use electric or hydraulic power, when feasible, to avoid noise associated with compressed air. This Implementation Program also requires the use of external jackets on the impact equipment to achieve a further reduction of 5 dBA. However, no policies or implementation programs are proposed that specifically address blasting. Therefore, it is possible that construction activities that require blasting to remove large outcroppings could result in vibration levels that disrupt nearby receptors.

Although these policies and implementation programs would require individual construction contractors to include numerous vibration-reducing techniques and minimize exposure at receiving land uses, at this time the location, intensity, and timing of future construction activities, as well as relative vibration levels at nearby receptors is unknown. Further no policies are in place that would reduce impacts from potential blasting activities. Therefore, it cannot be determined if vibration levels would exceed applicable standards at nearby receptors, and this impact would be **significant**.

## Mitigation Measures

### Mitigation Measure 3.12-4: Establish Blasting Restrictions

The following Implementation Program is recommended to reduce vibration and noise exposure from construction-related blasting to nearby sensitive land uses.

- ▲ **Implementation Program 5.A.i:** Require, prior to approval of development or construction activities that would include blasting activities, proof of contract with a State licensed contractor if blasting is required for any construction activities. Blasting shall not be allowed during the sensitive night time hours (7 p.m. to 7 a.m.). In addition, prior to approval of construction/grading permits, Tuolumne County will review all proposed blasting activities and require construction contractors to implement available noise reduction measures, including alternatives to blasting.

#### Significance after Mitigation

At the General Plan Update level, policies and implementation programs have been included that would ensure individual construction activities incorporate all available and feasible measures to reduce vibration from impact equipment and blasting activities. However, at the program-level scale of this analysis, individual construction activities and associated vibration exposure at receiving land uses cannot be determined. Future development would be subject to subsequent discretionary review by Tuolumne County and would be required to comply with above mentioned construction noise policies and any other identified at that time. All applicable policies and programs have been considered and included in the General Plan Update. At the General Plan Update level, no further mitigation is available, and this impact would be **significant and unavoidable**.

### Impact 3.12-5: Expose Noise-Sensitive Land Uses to Airport Noise That Exceeds the Standards in the Tuolumne County ALUCP

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Projected development under the General Plan Update could result in exposure of existing and future residences and other noise-sensitive land uses to air-traffic-related noise levels exceeding the “acceptable” range and noise standards as listed in the Tuolumne County ALUCP. However, implementation of policies in the General Plan Update to enforce noise standards for new development would reduce impacts to a **less-than-significant** level.

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Aircraft operations associated with the County airports can generate noise levels exceeding 65 dBA CNEL, and new development would be potentially subjected to airport-related noise exceeding acceptable levels, depending on its proximity to the airport. Projected development under General Plan Update could fall within the noise impact areas of the Columbia and Pine Mountain Lake Airports as described in the ALUCP and as shown in Exhibits 3.12-2 and 3.12-3. Land uses that would be immediately adjacent to the Columbia Airport or that fall within its noise impact area include Rural Residential (RR), Homestead Residential (HR), Low Density Residential (LDR), Business Park (BP), General Commercial (GC), High Density Residential (HDR), Special Commercial (SC), and Agricultural (AG). Land uses that would be immediately adjacent to the Pine Mountain Lake Airport or that fall within the noise impact area include primarily Low Density Residential (LDR), Rural Residential (RR), General Commercial (GC) and Agricultural.

However, Policy 5.A.6 and associated implementation programs require new development located in close proximity to existing airports to be designed such that aircraft noise standards are not exceeded. Further, these implementation programs would require an acoustical analysis to be conducted to provide recommendations for project design and require that all new development be compatible with the adopted ALUCP and associated noise standards.

Implementation of Policy 5.A.6 and its associated implementation programs would ensure that projects proposed within the noise environment of local airports would be evaluated and that appropriate sound attenuation techniques would be implemented on a case-by-case, project-level basis. Implementation of the above General Plan Update policy and implementation programs and enforcement of the Maximum Allowable Noise Exposure thresholds from aircraft noise sources as shown in Table 3.12-6 above would ensure that impacts related to airport generated noise exceeding County standards would be **less than significant** without mitigation.

#### Mitigation Measures

No mitigation is required.

### Impact 3.12-6: Expose Noise-Sensitive Land Uses to Operational Stationary Noise That Exceeds Applicable Standards

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Projected development under the General Plan Update could potentially result in exposure of future residences and other noise-sensitive land uses to noise impacts generated from operational stationary noise sources, especially from mining, timberland production, sawmills, and agricultural operations. Implementation of policies in the General Plan Update to enforce noise standards for new development would ensure that acceptable standards would not be exceeded in most cases. However, noise associated with operational stationary noise sources from agritourism uses could exceed applicable standards at nearby receptors, especially during the more noise-sensitive nighttime hours. These impacts would be **significant**.

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Mining, timberland production, sawmills, agricultural operations, and other commercial or industrial operations could be potential stationary noise sources or generate substantial levels of noise. Typical commercial and industrial noise sources include loading dock operations, parking lot activity, on-site equipment (including heating and air conditioning), and heavy truck idling. Other stationary noise sources of concern typically include generators, pumps, air compressors, outdoor speakers, motors, heavy equipment,

back-up alarms and similar machinery. There is potential for blasting or demolition noise associated with the mines, which may occur once every other year. Industrial and commercial operations can be substantial sources of noise, depending on the type and hours of operation. Such operations may result in noise impacts when they are adjacent to noise sensitive land uses.

The General Plan Update includes Policy 8.A.4, which requires a 200-foot buffer between agriculture land and new development. In addition, Policy 5.A.1 and associated implementation programs would require new development to be consistent with stationary noise standards and require an acoustical analysis to be conducted for new development likely to produce noise levels exceeding adopted stationary noise standards. Further Policy 5.A.3 and 5.A.i requires proposed new stationary sources or modifications to existing stationary noise sources to evaluate noise effects on existing nearby noise-sensitive land uses and requires that new sources be located as far from sensitive receptors as possible or be adequately designed to minimize noise exposure at sensitive receptors such that County noise standards are met.

For development that would occur near noise-sensitive areas where noise levels already exceed the standards shown in Table 3.12-7, Implementation Program 5.A.a would ensure existing noise levels would not be further increased. Depending on what is proposed and the location and source of noise, sound attenuation techniques may include site design to shield noise-sensitive uses from noise, special building standards to reduce interior noise, or the use of barriers to reduce exterior noise.

Proposed General Plan policies and the proposed changes to Title 17 of the County's Ordinance Code would increase opportunities for agritourism by expanding the types of agricultural uses allowed on property zoned Agriculture or Residential Estate. Individual properties used for agritourism could generate additional noise associated with parking areas, people talking, music, and increased traffic. Many types of agritourism operations, such as bonsai education or rare rose tours, would generate low noise levels that would not be typically be discernable at nearby sensitive land uses. It should be noted that proposed changes to Title 17 allow for special events that could include as many as 500 people (although events that large would be limited to only twice per year at a given location). According to the 2018 Lisa Wise Consulting's Agritourism Market Study, event venues account for approximately 15 percent of the 26 operations found in the County in 2018. While the exact number of agritourism operations that may be in operation in 2040 is unknown, it is reasonable to assume that that number will be less than 85 operations throughout the County, which is the high-end estimate of total operations in 2040 (the low-end estimate was 46 total operations in 2040). Therefore, the number of event venues associated with agritourism operations in the County is likely to range from 13 on the high end to seven on the low end. Standards for special events are provided in the proposed revisions to Ordinance Code section 17.52.220 that limit hours of event operation to exclude nighttime hours. The standards also include requirements for parking buffers, as well as requirements that noise levels are consistent with County standards. (See Appendix F for details.) However, there is no provision in the proposed Title 17 text and no policy or implementation program that would limit outdoor gatherings associated with regular operation of agritourism uses (non-special-event operations) to the daytime hours; thus, noise generated during the more noise-sensitive nighttime hours by agritourism uses could conflict with surrounding land uses. Therefore, operational stationary noise levels could exceed applicable standards at nearby receptors, and this impact would be **significant**.

## Mitigation Measures

### Mitigation Measure 3.12-6: Restriction of outdoor gathering hours for agritourism uses and prohibition of exterior amplified sound

The following implementation programs will be added to the General Plan Update under Policy 5.A.1 to reduce noise exposure from operational stationary noise sources of agritourism uses to nearby sensitive land uses.

- ▲ **Implementation Program 5.A.x** [specific numbering to be provided in Final General Plan Update]: Outdoor gatherings associated with normal, day-to-day agritourism uses shall be limited to daytime hours (7:00 a.m. to 10:00 p.m.). Exceptions may be allowed with review and approval by the County. As part of the County review and approval, such exceptions shall include an operation noise plan prepared by an

acoustical engineer that evaluates potential for outdoor gatherings occurring during nighttime hours to exceed County noise standards. If needed, the noise plan shall include noise minimization measures (such as siting/orientation of the gathering) to minimize sound exposure of any nearby residences such that County noise standards (Table 3.12-7 of this EIR) are not exceeded. The applicant shall demonstrate through the plan how the nighttime gathering would not exceed applicable County noise standards. After the noise plan is approved by the County for the agritourism operation, no additional noise plan would be required, unless the agritourism operation proposes changes to its nighttime outdoor uses that could meaningfully affect exterior noise levels (e.g., changes in location/orientation of gatherings, location of access/parking, and type of gatherings, and/or substantial change in typical number of guests).

- ▲ **Implementation Program 5.A.x** [specific numbering to be provided in Final General Plan Update]: No exterior amplified sound systems (e.g., public address systems) will be allowed as part of any agritourism use. Exceptions may be allowed with review and approval by the County with the submittal of a plan analyzing the noise from the speakers/amplification. As part of the County review and approval, the applicant shall submit a speaker/amplification noise plan prepared by an acoustical engineer, that evaluates the potential for the proposed amplified sound to exceed County noise standards (Table 3.12-7 of this EIR). If necessary, the noise plan shall include protocols for siting, orientation, and operation of speakers (including potential volume limits) that would be implemented to reduce the effect of noise levels generated by on-site stationary noise sources. The applicant shall demonstrate through the plan how the speaker/amplification system would not exceed applicable County noise standards (Table 3.12-7 of this EIR). After the noise plan is approved by the County for the agritourism operation, no additional speaker/amplification noise plan would be required, unless the agritourism operation proposes changes to the speaker/amplification system that could meaningfully affect noise levels (e.g. changes to the location, orientation, or volume of the amplification system).

#### **Significance after Mitigation**

These additional implementation programs require outdoor gatherings associated with agritourism uses to occur during daytime hours (7:00 a.m. to 10:00 p.m.) and prohibit amplified sound systems as a regular part of an agritourism use. The County may provide exceptions to these implementation programs only if a noise plan is provided that demonstrates County noise standards would not be exceeded at any surrounding noise-sensitive receptor. Implementation of these policies and programs would ensure that projects proposed in noise environments that could potentially exceed acceptable standards would be evaluated and that appropriate sound attenuation techniques would be implemented on a case-by-case basis. Therefore, implementation of Mitigation Measure 3.12-6 would reduce this impact to a **less-than-significant** level.

### **Impact 3.12-7: Expose Noise-Sensitive Land Uses to Railroad Noise and Vibration that Exceeds Applicable Standards**

Projected development under the General Plan Update could result in exposure of future residences and other noise-sensitive land uses to railroad-related noise and vibration levels exceeding the “acceptable” range and noise standards. Implementation of policies in the General Plan Update to enforce noise standards for new development would generally reduce impacts. Impacts due to railroad-related noise and vibration levels would be **less than significant**.

Operation of the Sierra Railroad and new development near or adjacent to the railroad as a result of the General Plan Update could be subject to significant noise and vibration impacts. FTA provides reference vibration levels and screening distances for noise assessments of rail roads. Although operation of the Sierra Railroad within the County is limited to 25 mph, this analysis conservatively applies the reference noise and vibration levels of rail vehicles traveling at 50 mph, because standardized data is available for this noise level and significant noise impacts would not be expected. Table 3.12-14 shows the approximate VdB from passenger and freight trains at 30, 50, 100, 120, 200, and 300 feet from the track centerline traveling at 50 mph. These are vibration levels at ground floor elevation. Upper level floors would experience less vibration due to dispersion and attenuation of the vibration energy as it propagates through a building.

Vibration typically attenuates by 1 to 2 VdB for each floor. Regarding railroad noise, FTA recommends a screening distance of 750 feet from railroads.

**Table 3.12-14 Vibration Levels for Rail Transit**

	Approximate VdB					
	30 Feet	50 Feet	100 Feet	120 Feet	200 Feet	300 Feet
Locomotive Powered Passenger or Freight Train (50 mph)	88	85	78	76	72	67

Source: FTA 2006

Projected development under the General Plan Update could result in new sensitive land uses in close proximity to the existing railroad. However, because specific design, orientation, location, and type of individual development projects are unknown at this time, this analysis conservatively applies the 65 VdB threshold for vibration-sensitive land uses and the 750-foot screening distance for noise-sensitive receptors. Under the General Plan Update new residential development could be placed within 750 of the existing Sierra Railroad, potentially exposing new receptors to noise and vibration levels that could be disturbing.

However, Policy 5.A.6 requires new noise sensitive uses to incorporate measures to ensure noise standards (i.e., 60 dBA CNEL, exterior, and 45 dBA CNEL, interior) are not exceeded. The policy further requires that new development near railroads prepare an acoustical study to determine appropriate measures, including distance buffers, site design considerations, and building material choice to adequately reduce noise and vibration exposure.

Implementation of General Plan Update Policy 5.A.6 would ensure that projects proposed in noise environments that potentially exceed acceptable standards would be evaluated and that appropriate sound attenuation techniques would be implemented on a case-by-case basis. Depending on what is proposed and the location and source of noise, sound attenuation techniques may include site design to shield noise-sensitive uses from noise, special building standards to reduce interior noise, or the use of barriers to reduce exterior noise. This impact would be **less than significant**.

**Mitigation Measures**

No mitigation is required.

## 3.13 POPULATION AND HOUSING

This section analyzes the potential environmental impacts of projected development under General Plan Update related to population and housing. Comments on the Draft EIR addressed population estimates, curtailment of sprawl, and methods used to determine population growth. These concerns are addressed below and in Chapter 2, “Project Description,” as appropriate.

### 3.13.1 Environmental Setting

As described in Chapter 2, “Project Description,” Tuolumne County, including the City of Sonora, has historically experienced a low annual rate of growth: roughly 1.2 percent annually between 1990 and 2000, and 0.2 percent annually between 2000 and 2010.

Table 3.13-1 shows the existing 2015 population and dwelling unit count for the unincorporated area, City of Sonora, and County total. The average household size is 2.28 persons, while vacancy rate is 30.7 percent (California Department of Finance 2015) in the unincorporated area of the County. The vacancy rate is higher for the unincorporated area of the County because vacation homes and recreational rental units, which are more predominant in the County, are classified as vacant units.

**Table 3.13-1 Existing Population and Dwelling Unit Count**

County/City	Population	Percentage of County	Dwelling Units	Percentage of County	Vacancy Rate
Unincorporated	49,458	91	21,240	90	30.7%
City of Sonora (Incorporated)	4,879	9	2,460	10	10.7%
<b>County Total</b>	<b>54,337</b>	<b>100</b>	<b>23,700</b>	<b>100</b>	<b>29.1%</b>

Sources: California Department of Finance 2015, Wood Rodgers 2016

The population of the unincorporated area of the County was 44,300 in year 1990; 50,100 in year 2000; 51,700 in year 2004; 50,400 in year 2010; and 49,458 in year 2015. (DOF 2018a; DOF 2015.) When the population of the City of Sonora is added with the population of the unincorporated area of the County, then the population for these years are as follows: 48,456 in year 1990; 54,522 in year 2000; 56,788 in year 2005; 55,365 in year 2010; and 54,337 in year 2015. The most recent California Department of Finance data indicate that, including the City of Sonora, the County’s population stood at 54,740 as of January 1, 2018. With this 0.2-percent increase over 2015 population levels, the County together with the City of Sonora have roughly the same population level they had in 2000.

According to the 2014 Housing Element Update, Tuolumne County has a large senior population. Between 2000 and 2010, the percentage of the population aged 65 or over increased from 18.3 percent of the population to 21 percent. In comparison, seniors make up 11 percent of the population statewide.

## 3.13.2 Regulatory Setting

### FEDERAL

There are no federal regulations related to population and housing that apply to the General Plan Update.

### STATE

#### State Housing Element Law

The Housing Element law (Government Code Section 65580 et seq.) mandates that local governments adequately plan to meet the existing and projected housing needs of all economic segments of the community. The law recognizes that for the private market to adequately address housing needs and demand, local governments must adopt land use plans and regulatory systems that provide opportunities for, and do not unduly constrain, housing development. As a result, state housing policy rests largely upon the effective implementation of local general plans and in particular, housing elements. Additionally, Government Code Section 65588 dictates that the housing elements must be updated at least once every five years. The Tuolumne County 5th Cycle 2014–2019 Housing Element Update was adopted in June 2014 and determined by the state to be in compliance with the Housing Element Law.

#### Regional Housing Needs Allocation

The Housing Element law requires that each county and city develop local housing programs to meet its “fair share” of future housing growth needs for all income groups, as determined by the California Department of Housing and Community Development. The regional councils of government are then tasked with distributing the state-projected housing growth need for their region among their city and county jurisdictions by income category. This fair share allocation is referred to as the Regional Housing Needs Allocation (RHNA) process. The RHNA represents the minimum number of housing units each community is required to plan for through a combination of (1) zoning “adequate sites” at suitable densities to provide affordability and (2) housing programs to support production of below-market rate units.

### LOCAL

#### Tuolumne Tomorrow, Distinctive Communities Alternative Growth Scenario

Tuolumne Tomorrow is a Regional Blueprint planning process for directing future growth and enhancing the quality of life in the County over the next few decades. Through this coordinated effort, the City of Sonora, Tuolumne County, Tuolumne County Transportation Council, and community members developed Guiding Principles for growth and development, and studied the potential effects of the likely land use development pattern and possible alternative growth scenarios on the transportation system, housing, local economy, quality of life, natural resources, and the environment. As a result of this effort, the Distinctive Communities Growth Scenario was selected and adopted by the Board of Supervisors in August 2012 as the preferred growth scenario for Tuolumne County. The Distinctive Communities Growth Scenario would encourage mixed-use and infill development within the vicinity or near identified communities, transportation networks, and public services. The General Plan Update has been formulated to reflect this preferred growth scenario.

#### Tuolumne County General Plan

The 1996 General Plan includes policies related to population and housing. 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 proposed Community Development and Design Element contains goals, policies, and implementation programs address population and housing. Specific General Plan Update policies related to population and housing are identified below under Section 3.13.3, “Impact Analysis.”

### **2014 Housing Element**

The Housing Element describes a variety of policies and programs intended to conserve the existing supply of housing in unincorporated Tuolumne County, including affordable housing, as well as to provide capacity for the development of new housing in accordance with the County's RHNA allocation.

According to the 2014 Housing Element Update, between January 1, 2009, and December 31, 2013, Tuolumne County issued building permits for 228 single-family homes, 6 attached units, and 60 mobile homes not in rental parks, for a total of 294 new dwelling units, which is an average of approximately 59 dwelling units per year. This figure does not include building permits issued for replacement mobile homes in mobile home parks. It does include building permits issued for demolition of residential units, which averaged 22 per year for that period. Tuolumne County RHNA allocation for unincorporated County areas is shown in Table 3.13-2.

**Table 3.13-2 Regional Housing Needs Allocation for Unincorporated Tuolumne County 2014-2019**

Income Group	RHNA Allocation (units)	% of Total
Extremely Low	45	10
Very Low	57	13
Low	74	16
Moderate	81	18
Above Moderate	193	43
<b>Total</b>	<b>450</b>	<b>100</b>

Source: Tuolumne County 2014

Tuolumne County's RHNA allocation for the 2014-2019 period is 450 new units. This total includes 176 units in the "extremely low," "very low," and "low" income categories. An important goal of the Housing Element is to ensure that Tuolumne County continues to grow and develop as a clean and safe County where residents have access to adequate, dignified, and affordable housing without overcrowding, where population density is in balance with resources.

### **3.13.3 Impact Analysis**

#### **METHODS OF ANALYSIS**

Through the 2016 Regional Transportation Plan (RTP), the Tuolumne County Transportation Council adopted a population projection of 63,243 residents in Tuolumne County, including the City of Sonora, by the year 2040 after considering the California Department of Finance forecasts, Census population projections, and past Tuolumne County Transportation Council adopted population projections. As discussed in Chapter 2, "Project Description," other growth projections are significantly lower than what the 2016 RTP adopted. The 2016 RTP was used over other projections in order to ensure that impacts of population growth and related development were not under estimated. As an example, the California Department of Finance forecasts little to no growth over the 25-year horizon (2015-2040) covered by the General Plan Update, with a projected population of 55,400 in year 2040 (DOF 2018b). The 2016 RTP was used over other projections because the County has decided to be conservative in its approach to the analysis and mitigation of environmental impacts. But the County's analysis in this EIR also considers the level of foreseeable growth throughout the County based in part upon consideration of where existing infrastructure is located and where previously-issued building permits and other land use approvals have been sought. Full buildout of every parcel in the County is not foreseeable. Because assumptions about population growth are considered very conservative, the EIR's analyses more than cover the foreseeable impacts of development under the General Plan Update.

## THRESHOLDS OF SIGNIFICANCE

Impacts relating to population and housing are considered significant if projected development under the General Plan Update would result in one or more of the following conditions, which are based upon the environmental checklist in Appendix G of the State CEQA Guidelines:

- ▲ induce substantial population growth either directly or indirectly;
- ▲ displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; or
- ▲ displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

As shown in Table 2-3 in Chapter 2, “Project Description,” Tuolumne County has designated more than sufficient land for potential housing units to meet the housing needs for the planning period. As part of the General Plan Update, additional acres are proposed to be designated for High Density Residential, Medium Density Residential, and Mixed Use zoning. Thus, Tuolumne County provides ample capacity to develop residential units in the “extremely low,” “very low,” “low,” moderate,” and “above moderate” income categories based on the number of remaining vacant lots in the County to meet Tuolumne County’s RHNA allocation for the 2014–2019. Therefore, there are no land use constraints to providing sufficient housing to meet the needs of the projected population at all income levels.

## GENERAL PLAN UPDATE POLICIES

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

### Community Development and Design Element

- ▲ **Policy 1.A.4:** Focus urban growth in identified communities, emphasizing infill development and the intensified use of existing development.
- ▲ **Policy 1.A.5:** Promote infill and clustered patterns of development that facilitate the efficient and timely provision of infrastructure and services.
  - **Implementation Program 1.A.f:** Encourage a compact development pattern in and around identified communities through the General Plan land use diagrams.
  - **Implementation Program 1.A.h:** Provide incentives to applicants with approved undeveloped projects that are modified to be consistent with High Density or Medium Density land use designations where allowable densities have been increased.
- ▲ **Policy 1.A.6:** Establish growth areas to provide community services and enhance the quality of life by providing for economic, housing and cultural opportunities within identified communities. Where possible, these growth areas should be placed near transit stops, commercial centers, and other services.
  - **Implementation Program 1.A.i:** Establish areas for growth in identified communities on the General Plan land use diagrams and zone the land in accordance with these maps.
- ▲ **Policy 1.A.7:** Encourage comprehensively planned and well-balanced, separate, and distinct communities.

- **Implementation Program 1.A.j:** Designate an adequate amount of land for industrial development, business parks, commercial facilities and recreational development to provide jobs for the County's workforce, facilities for the County's residents and visitors and promote a healthy economy.
- **Implementation Program 1.A.k:** Provide an appropriate mix of land uses and amenities in community cores to attract and retain quality businesses and institutions.

### **Housing Element**

- ▲ **Policy 2.A.4:** Encourage residential infill development through flexible development standards in areas of the County where adequate public facilities and services are already in place taking into consideration the visual character of the neighborhood.

## **PROJECT IMPACTS**

This section presents a programmatic-level analysis of potential impacts associated with population and housing 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 as well as above, this is a relatively low amount of growth.

### **Impact 3.13-1: Result in Displacement that Necessitates the Construction of Replacement Housing**

The General Plan Update would facilitate the development of new housing in accordance with state and local housing requirements. Although future redevelopment projects could displace residents temporarily during construction activities, this displacement would not be wide-spread. Impacts would be **less than significant**.

As discussed above, the existing 2015 population of Tuolumne County, including the City of Sonora, as of 2015 is 54,337, and there with approximately 23,700 dwelling units total. Based on estimates included in the 2016 RTP, the County population, including the City of Sonora, is forecasted to be 63,243 residents in 2040. In addition, as discussed in Chapter 2, "Project Description," under the growth forecasts, projected development under the General Plan Update would result in a net increase of 5,159 dwelling units through 2040. (See Chapter 2, Project Description, Table 2-6.)

An intention of the General Plan Update is to encourage development in identified communities, which would promote infill and mixed-use development near existing public infrastructure and services. The General Plan Update includes policies that promote growth in identified communities (Policy 1.A.4 and Policy 1.A.5) over rural areas, establish growth areas to provide community services (Policy 1.A.6) and encourage infill development in areas where adequate public facilities and services are already in place (Policy 2.A.4), and encourage comprehensively planned and well-balanced, separate, and distinct communities (Policy 1.A.7). These policies would be implemented through programs that would provide direction for appropriate land use planning (Implementation Programs 1.A.f, 1.A.h, 1.A.i, 1.A.j, and 1.A.k)

Under the General Plan Update, no changes would be made to land use designations that would reduce allowable density on any parcel. Rather, land use changes under the General Plan Update would increase the overall acreage and percentage of Low, Medium, High, Estate, and Rural Residential land use designations, while decreasing Large Lot and Homestead Residential land uses. These land use changes would allow for increased density of dwelling units to be developed where the land use changes would occur, which would generally be in identified communities.

While projected development under the General Plan Update would not result in long-term displacement of residents, future development projects could displace residents temporarily if redevelopment of existing residential structures occurs. However, based on existing land use patterns and projected growth, residential redevelopment projects would not likely occur at a pace that would result in large-scale displacement of existing residents. Also, given the County's vacancy rate of 30.7 percent, it is likely that temporary housing would be available for displaced residents such that replacement housing would not need to be constructed. Furthermore, even if the County's vacancy rate changes in the future, housing would continue to be developed as part of the projected development under the General Plan Update that would accommodate potentially displaced residents. This impact is **less than significant**.

### Mitigation Measures

No mitigation is required.

### Impact 3.13-2: Induce substantial population growth

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Implementation of the General Plan Update would facilitate new residential development in Tuolumne County, which would accommodate an increase in the population to approximately 63,243 by the year 2040. This growth would be expected to occur without adoption of the proposed General Plan Update. Because projected development under the General Plan Update would result in population growth consistent with regional population projections, impacts would be **less than significant**.

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As discussed in Chapter 2, "Project Description," the existing population of Tuolumne County (as of 2015) is 54,337. The Tuolumne County Transportation Council adopted a population projection of 63,243 residents in Tuolumne County by the year 2040 after considering the State Department of Finance Forecasts, Census population projections, and past Tuolumne County Transportation Council adopted population projections. Although the General Plan Update is based upon the assumption that Tuolumne County will reach this projected population, based on land use designation changes, it does not directly promote the growth of the County's population to that level. Moreover, the County has lost population over the last 10 years, and the rate of growth between 2015 and 2040, if a total population of 63,243 is to be reached, is a modest 0.5 percent per year.

This growth would be expected to occur without adoption of the proposed General Plan Update. The philosophy of the General Plan Update is that the County will be prepared and able to accommodate projected growth, while adhering to policies that define where and how development will occur. The General Plan Update provides guidance in determining the appropriate or desirable locations for this growth, thereby preventing an unnecessarily scattered dispersed pattern of development, which often results in extraordinary demands on public services, above average public service costs, and unnecessary and avoidable destruction or degradation of valuable natural resources. For additional discussion of population and economic growth, and the potential for the General Plan Update to remove obstacles to growth, refer to Chapter 5, "Other CEQA Discussions," in this Recirculated Draft EIR.

Furthermore, the physical environmental impacts associated with the growth that could occur with adoption of the General Plan Update have been analyzed and disclosed throughout Chapter 3 of this Recirculated Draft EIR. The General Plan Update would not induce substantial population growth, nor would it change how much growth occurs in the County. Therefore, impacts related to population growth would be **less than significant**.

### Mitigation Measures

No mitigation would be required.

## 3.14 PUBLIC SERVICES

This section assesses potential impacts of projected development under the General Plan Update to public services, including fire and emergency services, law enforcement, public schools, and libraries. Hazards and hazardous materials-related impacts are discussed in Section 3.9, “Hazards and Hazardous Materials.” Impacts to water and wastewater infrastructure and solid waste collection and disposal are discussed in Section 3.17, “Utilities and Service Systems.” Impacts to parks and recreation are discussed in Section 3.15, “Recreation.”

Several commenters on the 2015 Draft EIR expressed concerns related to public services, including growth and buildout assumptions and fire hazards. These topics are addressed herein, as appropriate. For additional discussion of growth and build-out assumptions, refer to Chapter 2, “Project Description.” For an analysis of wildland fire hazards, refer to Section 3.9, “Hazards and Hazardous Materials.”

### 3.14.1 Environmental Setting

#### FIRE PROTECTION SERVICE

Fire protection services are provided to unincorporated Tuolumne County by Tuolumne County Fire Department (TCFD), California Department of Forestry and Fire Protection (CAL FIRE), seven fire protection districts, and the United States Department of Agriculture in the Stanislaus National Forest (Tuolumne Fire Safe 2008). The majority of unincorporated Tuolumne County falls outside a fire district boundary and is protected by TCFD (administered by CAL FIRE under a contractual agreement with the County since 1975). TCFD has 13 fire stations, eight of which are in the unincorporated area of Tuolumne County (see Table 3.14-1). With the exception of the Jamestown and Groveland stations, the fire stations in the unincorporated communities are staffed by volunteer firefighters (Tuolumne County 2013).

TCFD operates under a cooperative agreement with CAL FIRE. CAL FIRE’s Tuolumne/Calaveras Unit is headquartered in Sonora and includes stations in Groveland, Twain Harte, Blanchard, and Green Springs. Additional services are provided by the Twain Harte Fire Protection District (FPD), Tuolumne City FPD, Columbia FPD, Sonora Fire Department, Groveland Community Services District (CSD), Strawberry FPD, and Tuolumne Rancheria Fire Department (Tuolumne Fire Safe 2008).

**Table 3.14-1 Tuolumne County Fire Stations and Staff**

County Stations	Location	Staffing
Mono Village Station 51	19500 Hillsdale Dr., Sonora	5 paid full time, 12 volunteer
Ponderosa Hills Station 53	20810 Tomira Meadows Ct., Tuolumne	12 volunteer
Long Barn Station 54	25910 Long Barn Rd., Long Barn	12 volunteer
Pinecrest Station 55	Pinecrest Ave., Pinecrest	12 volunteer
Mono Vista Station 56	16925 Mono Vista Rd. North, Sonora	12 volunteer
Crystal Falls Station 57	21720 Phoenix Lake Rd., Sonora	12 volunteer
Cedar Ridge Station 58	24190 Kewin Mill Rd., Sonora	12 volunteer
Chinese Camp Station 61*	Highway 120, Chinese Camp	12 volunteer
Smith Station 63*	223260 Elmore Rd., Groveland	12 volunteer
Don Pedro Station 64*	2990 Highway 132, La Grange	12 volunteer
Jamestown Station 76	18249 4th Ave., Jamestown	5 paid, 12 volunteer
Groveland Station 78	18930 Highway 120 Groveland	5 full time and 21 part time paid
Columbia College Station 79	11600 Columbia College Dr., Sonora	1 full time paid, 15 student, 12 volunteer

Source: Tuolumne County 2013

The Tuolumne County Fire Department responded to 4,347 total incidents during the 2014 calendar year, and currently serves an area of more than 2,200 square miles. Currently, the Fire Department maintains shifts of nine firefighters on duty 24 hours a day, seven days a week. TCFD does not use the National Fire Protection Association standard for fire protection services that requires 1-2 firefighters per 1,000 residents because this standard does not fit TCFD's personnel resources and service population. Fire services within the County are provided by a mix of professional and volunteer firefighters and mutual aid agreements among the fire service agencies. The populations of the City of Sonora and the communities of Columbia, Twain Harte, Strawberry/Pinecrest, Mi-Wuk/Sugar Pine and Tuolumne are serviced by fire departments separate from TCFD. For urban areas, the TCFD response time is an average of 9 minutes; suburban areas have a response time of 10 minutes; rural areas have a response time of 14 minutes; and remote areas have response times dependent directly on travel distance (Gregory, pers. comm., 2018a; NFPA 2018).

The Fire Prevention Department of the Tuolumne County Fire Department is coordinated by the Fire Marshal and it is the duty of the Fire Prevention Bureau to prevent incidents that require the response of the County's fire suppression personnel. It is the job and responsibility of this bureau to enforce fire codes, to conduct fire and life safety plan reviews, to provide fire safety education, to inspect and abate existing and potential fire hazards through public education and code enforcement. The Fire Marshal and staff also draft and recommend new fire and life safety ordinance codes and standards to the Tuolumne County Board of Supervisors as needed (Tuolumne County n.d.).

## **AMBULANCE SERVICE**

Tuolumne County Ambulance Service provides emergency and non-emergency medical transport services for Tuolumne County. There are over 60 full time and part time Paramedics and Emergency Medical Technicians (EMTs) employed, who handle approximately 8,000 calls per year (Tuolumne County n.d.).

## **LAW ENFORCEMENT**

The Tuolumne County Sheriff's Office (TCSO) is committed to providing law enforcement services to all unincorporated areas of the County and to staff the county jail. There are approximately 135 authorized positions, including 63 Patrol Deputies and 38 Adult Detention deputies who provide law enforcement services to the 54,337 residents of the County. Additionally, the Emergency Dispatch Center is staffed 24/7 by 13 Dispatchers. There is only one Sheriff Station in the County, located at 28 Lower Sunset Drive, in the City of Sonora (Carrillo, pers. comm., 2015). The Sheriff's Station consists of several buildings in close proximity to each other, and includes the patrol unit, the coroner's office, and the County jail.

In addition to staffing the Patrol division, the County Jail, Emergency Dispatch Center, the Coroner's Office, and performing Civil Processes, the Sheriff's Office also provides a wide array of ancillary services such as investigations, narcotics, boat patrol, courts security, records, swat, search & rescue, K-9. Crime prevention and administrative functions are also provided by the Sheriff's Office (Tuolumne County Sheriff's Office 2015).

In 2013, TCSO handled more than 31,688 calls for service. These calls for service range anywhere from homicides to loud music complaints, to assists to Sonora Police, California Highway Patrol, Fire Department, Child Welfare Services, etc. For the 2013 calendar year, calls for service included over 2,500 traffic stops and more than 296 issued citations. Deputies contacted 852 suspicious vehicles or persons. Additionally, Deputies had 2,574 self-initiated incidents, handled 2,949 disturbance calls, which included domestic violence and verbal disputes. In addition, the Sheriff's Office Dispatch handled 9,010 calls for service ranging from medical aids to animal control calls and assisting other agencies (Tuolumne County Sheriff's Office 2013).

TCSO does not have a target officer per 1,000 resident ratio. The Sheriff's Office does not use a level of service ratio because of the large geographic area of the County. TCSO strives to ensure it has enough personnel to cover the large geographic area (Carrillo, pers. comm., 2015). TCSO's average response time is 3 minutes and 18 seconds (Carrillo, pers. comm., 2015).

The California Highway Patrol provides additional traffic enforcement along state highways and County roadways. Tuolumne County is within the California Highway Patrol's (CHP) Central Division which encompasses the heart of the San Joaquin Valley. The County's CHP area office is located at 18437 Fifth Avenue in Jamestown. In addition to issuing traffic citations for traffic violations, CHP provides other services to support the overall safety of residents in the County.

## PUBLIC SCHOOLS

There are 11 school districts within Tuolumne County (including the City of Sonora), consisting of two high school districts, eight elementary school districts, and one unified school district, which includes both elementary and high schools. Approximately 5,907 students attended the first day of classes for the 2017-2018 school year within this County.

There are four public charter schools within Tuolumne County: California Virtual Academy at Jamestown, Connections Visual and Performing Arts Academy, Gold Rush Charter, and the Foothill Leadership Academy, which opened in the City of Sonora for the 2014-2015 school year. For the 2017-2018 school year, there were 875 students enrolled in the four charter schools.

Enrollments at private schools operating within Tuolumne County range in size from a single student (at home school sites) up to 155 students. The two largest private schools are the Mother Lode Christian School, located in Tuolumne, and the Sierra Waldorf School, located in the Rawhide Valley, near Jamestown.

Financing school facilities is a problem facing school districts in Tuolumne County. Due to financing problems and decreased enrollment, the Chinese Camp School District has been consolidated into the Jamestown School District. Table 3.14-2 below shows each school by name, grade levels served, 2013-2014 enrollment and the district in which it is located.

There has been a substantial decrease in enrollment throughout the County over the past decade. District and school capacity is not closely monitored unless indicators of overcrowding are present. Therefore, due to the declining enrollment, overcrowding indicators are not present and information related to current student capacity of the districts and schools in Tuolumne County is not readily available; however, there is no known issue with student capacity.

**Table 3.14-2 Schools within Tuolumne County and 2013-2014 Enrollment**

District Name	School Name	Grades	2017-2018 Enrollment
Bellevue School District	Bellevue Elementary School	K-8	147
Big Oak Flat Groveland Unified School District	Tenaya Elementary School	K-8	197
Big Oak Flat Groveland Unified School District	Don Pedro High School	9-12	48
Big Oak Flat Groveland Unified School District	Tioga High School	9-12	52
Big Oak Flat Groveland Unified School District	Moccasin Community Day	10-12	5
Columbia Union School District	Columbia Elementary	K-8	521
Columbia Union School District	Springfield Community Day	5-8	10
Curtis Creek School District	Curtis Creek Elementary	K-8	458
Jamestown School District	California Virtual Academy at Jamestown	K-12	114
Jamestown School District	Chinese Camp School	K-6	29
Jamestown School District	Jamestown Elementary School	K-8	298
Sonora School District	Sonora Elementary School	K-8	728
Sonora Union High School District	Sonora High School	9-12	973

**Table 3.14-2 Schools within Tuolumne County and 2013-2014 Enrollment**

District Name	School Name	Grades	2017-2018 Enrollment
Soulsbyville School District	Soulsbyville Elementary	K-8	494
Summerville School District	Summerville Elementary School	K-8	402
Summerville Union High School District	Cold Springs High	9-11	2
Summerville Union High School District	Connections Visual and Performing Arts Academy	7-12	222
Summerville Union High School District	Gold Rush Charter	K-12	406
Summerville Union High School District	Mountain High	10-11	4
Summerville Union High School District	South Fork High	9-12	4
Summerville Union High School District	Summerville High	9-12	406
Twain Harte School District	Twain Harte Middle School	K-8	254
Tuolumne County	Foothill Leadership Academy	K-8	133
<b>Total</b>			<b>5,907</b>

Source: California Department of Education 2017

## OTHER PUBLIC SERVICES

Other public service functions provided by the County government are also considered by the Tuolumne County General Plan Update. Some of the County functions are primarily administrative, like the County Administration Office, while others provide direct service to certain taxpayers who have a need of a particular service, such as the District Attorney's Victim/Witness Division. Other offices that provide public services include: Agricultural Commissioner, Animal Control, District Attorney, Child Support, Victim/Witness, Elections, Farm Advisor, Child Welfare Services, Community Resources Agency, Public Health, Behavioral Health, Welfare, Probation, Public Defender, Recreation, and Weights and Measurements.

### Library Services

The Tuolumne County Library system provides a diverse array of library services to the residents of Tuolumne County. Based at the Main Library in Sonora, with branches in Groveland, Tuolumne City, and Twain Harte, the County Library is able to support the information and educational needs of County residents through standard reference and circulating collections, as well as videos, periodicals and newspapers, interlibrary loans, and children's programs.

## 3.14.2 Regulatory Framework

### FEDERAL

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

### STATE

#### California Occupational Safety and Health Administration

In accordance with California Code of Regulations Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment," the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards

include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance and use of all firefighting and emergency medical equipment.

### **Emergency Response/Evacuation Plans**

In 2008, Governor Schwarzenegger signed AB 38, the California Emergency Services Act, which merged the duties, powers, purposes, and responsibilities of the Governor’s Office of Emergency Services and the Governor’s Office of Homeland Security into a new cabinet-level agency called the California Emergency Management Agency (Cal EMA). The legislation authorizes Cal EMA to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster. Cal EMA serves as the lead State agency for emergency management and coordinates the State response to major emergencies in support of local government. The primary responsibility for emergency management resides with local government. SEMS provides the mechanism by which local government requests assistance from Cal EMA, and as such, Cal EMA maintains oversight of the State’s mutual aid system. Cal EMA may task State agencies to perform work outside their day-to-day and statutory responsibilities and serves as the lead agency for obtaining federal resources. The 2012 Multi-hazard Emergency Response Plan for Tuolumne County establishes the emergency organization, assigns tasks, specifies policies, and general procedures, and provides for coordination of planning efforts of the various emergency staff and service elements utilizing the National Incident Management System (NIMS) and the SEMS.

### **California State Assembly Bill 2926—School Facilities Act of 1986**

In 1986, AB 2926 was enacted by the state of California authorizing entities to levy statutory fees on new residential and commercial/industrial development in order to pay for school facilities. AB 2926, entitled the “School Facilities Act of 1986,” was expanded and revised in 1987 through the passage of AB 1600, which enacted Government Code Section 66000 et seq. Under this statute, payment of such statutory fees by developers would serve as total mitigation in accordance with CEQA to satisfy the impact of development on school facilities.

### **California Department of Education**

The California Education Code contains various provisions governing the siting, design, and construction of new public schools (e.g., Education Code Sections 17211, 17212, and 17212.5). In addition, to help focus and manage the site selection process, the California Department of Education’s (CDE’s) School Facilities and Planning Division has developed screening and ranking procedures based on criteria commonly affecting school selection (Education Code Section 17251[b], 5 CCR Section 14001[c]). The foremost consideration in the selection of school sites is safety. Certain health and safety requirements are governed by state statute and CDE regulations. In selecting a school site, a school district should consider the factors including proximity to airports, proximity to high-voltage power transmission lines, presence of toxic and hazardous substances, hazardous air emissions, and facilities within one-quarter mile, and proximity to railroads.

### **California Government Code Section 65995—School Facilities Legislation**

The School Facilities Legislation was enacted to generate revenue for school districts for capital acquisitions and improvements. As of 2018, this legislation allows a maximum one-time fee of \$3.79 per square foot of residential development and \$0.61 per square foot of commercial development. This fee is divided between the primary and secondary schools and is termed a “Level One” fee.

The passage of SB 50 in 1998 defined the Needs Analysis process in Government Code Sections 65995.5-65998. Under the provisions of SB 50, school districts may collect Level Two and Level Three fees to offset the costs associated with increasing school capacity in response to student enrollment increases associated with residential developments. Level Two fees require the developer to provide one-half of the costs of accommodating students in new schools, while the state would provide the other half. Level Three fees require the developer to pay the full cost of accommodating the students in new schools and would be

implemented at the time the funds available from Proposition 1A (approved by the voters in 1998) are expended. School districts must demonstrate to the state their long-term facilities needs and costs based on long-term population growth to qualify for this source of funding, however, voter approval of Proposition 55 on March 2, 2004, precludes imposition of the Level Three fee for the foreseeable future. Therefore, once qualified, the districts may impose only Level Two fees, as calculated per SB 50.

## LOCAL

### Fire Codes and Guidelines

The availability of sufficient water flows and pressure are a basic requirement of the TCFD, Cal Fire and other mutual aid fire departments in the region. Fire Department requirements are determined for specific development projects at the design stage and are based on the state's Uniform Building Code (UBC) and the National Fire Protection Association (NFPA). In addition to meeting minimum fire flow requirements, all development projects in the plan area would be required to meet other various fire protection requirements identified in the plan check and review process.

### TCFD Service Level Stabilization Plan

The Tuolumne County Fire Department *Service Level Stabilization Plan* was adopted in 1993 to address fire protection needs of the area served by the TCFD. The Plan focuses on three goals:

1. Clearly define the baseline service level for TCFD;
2. Identify stable funding sources for TCFD through a realistic annual operations budget; and
3. Establish an apparatus replacement fund.

A functionally integrated fire protection system, involving federal, state, and local government resources, is a cost-effective method of delivering high quality fire protection to at risk areas. This allows coordination of fire prevention, protection, and suppression strategies.

### Tuolumne County Services Impact Mitigation Fee

New residential development is subject to the County Services Impact Fee. All fees are due prior to issuance of Blue Tag for electrical service or at the time escrow closes if an escrow account has been established for the subject property prior to issuance of a building permit. Prior to issuance of a Building Permit, the applicant must provide proof to the County Building and Safety Division that an escrow account has been established and must sign a contract to pay the fee at the time in conjunction with escrow closing.

### Tuolumne County General Plan

The 1996 General Plan provides a framework for addressing public-services issues 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 Public Safety Element and Education and Libraries Element contain goals, policies, and implementation programs to address projected development under the General Plan Update in a manner that would address the demand for public services. Specific General Plan Update policies related to public services are identified below under Section 3.14.3, "Impact Analysis."

## 3.14.3 Impact Analysis

### METHODS OF ANALYSIS

The General Plan Update is a policy document that would guide development and conservation of land in the county. Adoption of the plan 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 fire and emergency services, law enforcement, and public schools capacity. Impacts are evaluated assuming full buildout of the plan area.

Evaluation of potential fire service, law enforcement, and public school impacts was based on review of applicable service plans, County code and service standards, and personal communications with service providers. Evaluation of potential public services impacts also considered the General Plan Update policies and implementation programs described below.

## THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the State CEQA Guidelines, the projected development under the General Plan Update would result in potentially significant impacts relating to public services if it would:

- ▲ Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable services ratios, response times or other performance objectives for any of the public services:
  - ▶ Fire and Emergency Services,
  - ▶ Law Enforcement, or
  - ▶ Schools.

**Fire and Emergency Services.** Information on current service demands and available staff and equipment was provided by Stephen Gregory from the Tuolumne County Fire Prevention Division of the Tuolumne County Fire Department. The Fire Department does not use the National Fire Protection Association (NFPA) standard and the TCFD Service Level Stabilization Plan as explained above. The TCFD Service Level Stabilization Plan encourages coordination of fire and emergency services with federal and state services. Therefore, an impact would be considered significant if projected development under the General Plan Update would increase demand for fire and emergency services such that it would require the construction of new or expanded facilities, the construction of which could cause significant environmental impacts.

**Law Enforcement.** Information on service demands and available staff and equipment as of 2015 was provided by Tuolumne County Counsel Sarah Carrillo and the Tuolumne County Sheriff's Office. The Sheriff Office's goal is to ensure it has enough personnel to cover the large geographic area. The service ratio in 2015 is approximately 1 deputy per 403 residents. An impact would be considered significant if projected development under the General Plan Update results in increased demand for law enforcement protection services such that it would require the construction of new or expanded facilities, the construction of which could cause significant environmental impacts.

**Public Schools.** Information on current school facilities was provided by the various school districts throughout the County and the School Accountability Report Card (SARC) by the California Department of Education (<http://www.sarconline.org/>). Specifically, information pertaining to current school enrollments was collected from SARC. Student generation rates, provided by the various districts as contained within the most recent developer impact fee report, were used to estimate potential future enrollments as a result of the population increase associated with projected development under the General Plan Update. Current information on district and school capacity was not readily available for all districts and schools. According to Sonora Union High School District, Columbia Union School District, and Big Oak Flat Groveland Unified School District, Tuolumne County has a substantial shortage of student enrollment. As a result, each district and school is operating without any capacity issues.

Impacts would be significant if projected development under the General Plan Update would cause student enrollment to increase such that new or expanded school facilities would be required, the construction of which could cause environmental impacts.

**Issues Not Discussed Further**

Appendix G also includes the following significance threshold related to physical impacts associated with other public facilities.

- ▲ Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable services ratios, response times or other performance objectives for other public facilities.

Projected development under the General Plan Update would increase overall demand for services. The provision and payment of the County Services Impact Mitigation Fee would ensure that all service-providing functions of County government agencies are adequate. Any new or expanded facilities would be developed consistent with the General Plan Update land use diagram and would not result in environmental impacts above and beyond those evaluated in this Recirculated Draft EIR. Impacts to other public facilities are not evaluated further in this EIR.

Impacts to parks are discussed in Section 3.15, "Recreation."

**GENERAL PLAN UPDATE POLICIES**

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

**Public Safety Element****Fire and Emergency Services Policies**

- ▲ **Policy 9.A.4:** Actively support efforts to maintain and improve Federal and State fire service capabilities.
  - **Implementation Program 9.A.d:** Support efforts of CAL FIRE, the U.S. Forest Service, the National Park Service, other government land management agencies, the Southwest Interface Team (SWIFT), the Highway 108 Fire Safe Council, the Yosemite Foothills Fire Safe Council and other regional fire safe entities, to secure adequate funding for their fire protection and fuel reduction programs, and support their efforts to reduce the wildland fire potential on lands under their jurisdiction within Tuolumne County.
- ▲ **Policy 9.C.3:** Periodically review emergency medical services to maintain an acceptable level of service as the County population changes.
- ▲ **Policy 9.E.2:** Maintain adopted levels of fire protection service.
  - **Implementation Program 9.E.e:** Strive to improve the County's Insurance Service Office (ISO) ratings through improved infrastructure of hydrants and water availability, and by reducing response time with a greater number of strategically placed and fully staffed fire stations. ISO ratings should not exceed 9 for areas without hydrants and should not exceed 6 for areas with hydrants within the jurisdiction of the Tuolumne County Fire Department as outlined in fire protection service reports. Provide assistance to fire protection agencies in their efforts to improve ISO ratings wherever possible.
- ▲ **Policy 9.F.1:** Support and implement the Tuolumne County Fire Department Service Level Stabilization Plan.
  - **Implementation Program 9.F.a:** Consult with the Tuolumne County Fire Department to establish funding mechanisms, including impact fees, to offset fire protection costs for new development in areas of high wildfire risk.

- ▲ **Policy 9.F.2:** Construct new fire protection facilities as needed within the jurisdiction of the Tuolumne County Fire Department/CAL FIRE in order to maintain the desired Insurance Services Office (ISO) ratings.
  - **Implementation Program 9.F.b:** Identify appropriate areas for construction of new fire protection facilities within the service area of the Tuolumne County Fire Department/CAL FIRE necessary to provide structural fire protection to the residents of Tuolumne County. Consult with all fire agencies in the County on fire protection facilities planning.
  - **Implementation Program 9.F.c:** Construct new fire protection facilities and equip and staff new and existing facilities in areas of the County under the jurisdiction of the Tuolumne County Fire Department where deemed necessary.

#### Law Enforcement Policies

- ▲ **Policy 9.D.2:** Provide law enforcement, such as patrol, investigation, supervision, administration, clerical support, dispatch, coroner, crime laboratory, prosecution, probation, and jail services within the unincorporated area of Tuolumne County and assure that the established level of service is maintained and maintain this level.
  - **Implementation Program 9.D.b:** Establish a definitive measure of what constitutes an adequate level of service for the criminal justice system in Tuolumne County. This comprehensive definition should identify all necessary services provided by the County's criminal justice system law enforcement, such as patrol, investigation, supervision, administration, clerical, support, dispatch, coroner, crime laboratory, prosecution, probation and jail services. In the absence of this determination, the County should continue to maintain the existing level of service and upgrade it to meet the needs of the County's increasing population.
- ▲ **Policy 9.D.3:** Assure that the established level of service in the criminal justice system is maintained prior to approving new development.
  - **Implementation Program 9.D.e:** Consider including provisions for reimbursement of criminal justice services in the terms of future annexation agreements between the City of Sonora and the County, to provide reimbursement to the County by the City for the expansion of services which it requires.
  - **Implementation Program 9.D.f:** Consider implementing law enforcement options as new urban areas develop and expand in order to increase patrol time and reduce response time to citizen requests for law enforcement services.
- ▲ **Policy 9.D.4:** Require new development to be designed so as to discourage criminal activity.
  - **Implementation Program 9.D.g:** Encourage the use of private patrols and security personnel in large residential and commercial developments to assist the Sheriff's Office in crime prevention.
  - **Implementation Program 9.D.h:** Actively involve the Tuolumne County Sheriff's Office in the review of land development applications and incorporate law enforcement recommendations as conditions of land use entitlements.

#### Education and Libraries Element

##### Public School Policies

- ▲ **Policy 12.A.1:** Encourage school facilities planning and site acquisition to be coordinated between school districts and Tuolumne County in order to provide public schools that are physically and functionally integrated with their communities.

- **Implementation Program 12.A.a:** Work closely with school districts to identify future school sites that are compatible with land use, transportation, air quality plans, and pedestrian routes.
- **Implementation Program 12.A.b:** Encourage schools to be located in areas with a minimum of incompatible land uses such as traffic hazards, airports, industrial complexes and repositories for hazardous waste.
- **Implementation Program 12.A.c:** Require review, by the Community Resources Agency Director, of potential school sites. The Community Resources Agency Director shall report on the conformity of the site with this General Plan, prior to acquisition by the school district, in accordance with California Government Code Section 65402 and Tuolumne County Resolution 89-11.
- **Implementation Program 12.A.d:** Encourage schools to be located in residential areas to promote the use of school facilities as community centers, with their associated educational, cultural and recreational opportunities, and minimize transportation costs.
- **Implementation Program 12.A.e:** Encourage the use of schools as multi-purpose community facilities for uses such as after school **care** for young students and youth services in order to avoid duplication of facilities.
- **Implementation Program 12.A.f:** Integrate schools into the system of alternative transportation corridors, such as bike lanes, and riding and hiking trails, so that as many students as possible can walk or bike to school.
- ▲ **Policy 12.A.3:** Promote a quality K-12 education in an uncrowded environment for all children of Tuolumne County.
  - **Implementation Program Implementation Program 12.A.i:** Assist the County Superintendent of Schools Office and the school districts within Tuolumne County in their efforts to provide school services and facilities consistent with the level established by the respective school boards.
  - **Implementation Program 12.A.m:** Allow the establishment of private or alternative schools in a variety of zoning districts as conditional uses as long as the school can be found to be compatible with the surrounding neighborhood.
  - **Implementation Program 12.A.n:** Support the school districts within Tuolumne County in their quest for adequate funding to provide school facilities for anticipated County growth.
  - **Implementation Program 12.A.o:** Support schools in their efforts to obtain funding for school facilities.

#### Library Policy

- ▲ **Policy 12.C.1:** Maintain a goal through the Capital Improvements Program (CIP) for levels of library services throughout Tuolumne County equivalent to 325 square feet of gross floor area of adequately equipped and staffed library facilities per 1,000 population, exclusive of the Sierra Conservation Center.
  - **Implementation Program 12.C.a** - Establish revenue sources to provide a stable, adequate level of funding for library services.
  - **Implementation Program 12.C.b** - Maintain adequate considerations in the County's Capital Improvement Program (CIP) for the expansion of library facilities and collections. The estimates for the expansion projects will be refined as long-range capital needs of the library system are more clearly defined.

- **Implementation Program 12.C.c** - Review the County Services Impact Mitigation Fee on a regular basis to evaluate the adequacy of the library services component. The fees should fund the cost recovery of necessary building additions or replacements. The librarian shall be consulted as to an adequate level of funding.
- **Implementation Program 12.C.d** - Expand electronic services offered at libraries, such as e-book access, computer and internet access, online research service, and mobile library applications.

## PROJECT IMPACTS

This section presents a program-level analysis of potential impacts associated with provision of public services for 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 3.14-1: Increase the Demand for Fire Protection and Emergency Services

Projected development under the General Plan Update would increase demand for fire protection service; however, excess capacity exists within the TCFD and new or expanded facilities would not be needed. Review of subsequent development by the Fire Department pursuant to existing County development review practices, the required provision of emergency access, and payment of impact mitigation fees would ensure that potential impacts are **less than significant**.

Currently, there are 13 fire stations located throughout the County. The proposed General Plan Update encourages future development to be focused primarily in identified communities, which are within the service area of the 13 fire stations of the TCFD or other local special districts. Thus, the areas that would be expected to accommodate the majority of additional growth under the General Plan Update would be serviced by existing fire stations located within their service area. No new developments would be anticipated to occur beyond the existing service area of the TCFD or the seven fire protection districts in the County because all areas of unincorporated County fall within the jurisdiction of one of these agencies. TCFD has the capability to serve the area and complies with the response times specified in the TCFD Service Level Stabilization Plan. Therefore, TCFD response times would not be compromised by the minor level of new development projected to occur within the current service area under the General Plan Update.

However, because there would be an increase in population, additional on-duty full time firefighters could be needed incrementally over the planning horizon of the General Plan Update. Existing facilities can accommodate any additional firefighters needed based on the projected development under the General Plan Update and would not require a new or expanded station or facility to be built (Gregory, pers. comm., 2018b). It should also be noted that federal and state fire protection service is provided for wildland fire response. Also, mutual aid is provided by the City of Sonora and the tribes that can supplement County fire protection services when needed.

Furthermore, the General Plan Update would require that adequate fire protection service is maintained as development occurs. The Public Safety Element includes the several policies that would reduce potential impacts to fire and emergency services. Policy 9.A.4 directs the County to actively support the efforts to maintain and improve federal and state fire service capacity in the County; Policy 9.C.3 addresses maintenance of an adequate level of emergency medical services through periodic review to meet increased demand as population in the County grows; Policy 9.E.2 and Policy 9.F.1 require maintaining adopted levels of fire protection service presented in the TCFD Service Level Stabilization Plan; Policy 9.F.1 addresses support and implementation of the Tuolumne County Fire Department Service Level Stabilization Plan to ensure that fire protection service levels are met; and Policy 9.F.2 requires that adequate fire protection facilities are constructed to maintain

desired Insurance Services Office (ISO) ratings. Implementation of the Public Safety Element policies would ensure impacts related to fire protection and emergency services are **less than significant**.

## Mitigation Measures

No mitigation would be required.

### Significance after Mitigation

Impacts would be less than significant without mitigation.

## Impact 3.14-2: Increase the Demand for Law Enforcement Service

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Projected development under the General Plan Update would increase demand for law enforcement services, but would not result in the need to construct new law enforcement facilities. Therefore, impacts would be **less than significant**.

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Currently, the Sheriff's Office does not adhere to a specific officer to resident service ratio because of the large geographic area of the County. Nevertheless, the Sheriff's Office strives to ensure it has enough personnel to cover the large geographic area (Carrillo, pers. comm., 2015).

The General Plan Update encourages new development to be focused primarily in identified communities, which are within the service area of the Sheriff's Office. The Sheriff's Office service area includes the entire county excluding the City of Sonora, which is not included in the General Plan; therefore no New development would occur beyond the service area of the Sheriff's Office, and the level of new development occurring within the service area is not expected to be substantial given the low level of population increase (0.6 percent) projected to occur in the County by 2040. As a result, assuming additional sheriff personal would be added incrementally over the planning horizon, the Sheriff's Office average response time of approximately 3 minutes and 18 seconds would not be substantially affected. There is one Sheriff's Office in the County. An expansion of, or intensification of development does not necessarily result in the need for additional facilities if deputies and patrol vehicles are equipped with adequate telecommunications equipment to communicate with Sheriff's Office headquarters. However, it is likely that some additional staffing would be needed to accommodate the minor amount of growth while maintaining average service levels.

There are 135 deputies who provide law enforcement services to the County's existing (as of 2015) 54,337 residents, which would equate to 1 deputy per 403 residents. Based on the Tuolumne County Transportation Council's future projected population, the increase in population in Tuolumne County is estimated to be 8,906 people by the year 2040. Therefore, an additional 23 deputies would be needed by the year 2040 to maintain the 2015 service ratio. As discussed above, the addition of 23 deputies by the year 2040 could potentially be accommodated by existing facilities as long as adequate telecommunications equipment was available. However, if new or expanded facilities are required to accommodate the additional law enforcement personnel, this would be a minor expansion or small new building and would be developed consistent with the General Plan Update land use diagram and would not result in environmental impacts above and beyond those evaluated in this Recirculated Draft EIR.

Furthermore, the General Plan Update would require that adequate law enforcement is maintained as development occurs. The Public Safety Element includes the following policies that would address potential impacts to law enforcement. Policy 9.D.2 ensures that adequate law enforcement levels are maintained; Policy 9.D.3 ensures that adequate criminal justice capacity is maintained prior to approving new development; and Policy 9.D.4 requires that new development is designed such that criminal activity is deterred, including the incorporation of law enforcement recommendations at the time of project processing. These policies help address potential demand for law enforcement officers and provide for expansion of law enforcement staff at a pace that is consistent with growth. Implementation of the Public Safety Element would ensure impacts related to law enforcement services are **less than significant**.

## Mitigation Measures

No mitigation would be required.

### Significance after Mitigation

Impacts would be less than significant without mitigation.

## Impact 3.14-3: Increase the Demand for Public Schools

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Projected development under the General Plan Update could increase student enrollment. However, the payment of state-mandated school impact fees is deemed full mitigation by the State of California. Therefore, impacts to schools would be **less than significant**.

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According to the US Census Bureau, approximately 17 percent of the County's population is under 18 years old, and approximately 4 percent of the County's population is under 5 years old (US Census Bureau 2017). Therefore, the school-aged population currently comprises approximately 13 percent of the County's total population. Projected development under the General Plan Update would likely increase enrollment of schools within the various districts throughout the County. Within the 2040 planning horizon the County's population is expected to grow by 8,906 people. Assuming the same percentage of school-aged residents persists through 2040, the projected population increase could generate roughly 1,200 new students over the next 20+ years (an average of approximately 60 students per year).

Currently, all public schools within the County serve a total student population of 5,907 and are under enrollment capacity. As discussed above, two separate school districts had to be consolidated due, in part, to under enrollment. Therefore, it is expected that there is existing available capacity to absorb the projected student growth occurring within 2040 planning horizon. Further, as development occurs over the next 20+ years, if additional school facilities are needed, schools would modify their facilities on an as-needed basis, and projected development under the General Plan Update would be required to pay impact mitigation fees. However, the projected increase in students is 60 students per year so additional facilities are not anticipated to be required.

Although projected development under the General Plan Update may increase student enrollment, Section 65995(h) of the California Government Code (Senate Bill 50, chaptered August 27, 1998) states that payment of statutory fees "*...is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization.*" Therefore, pursuant to compliance with Government Code Section 65995(h), impacts relating to schools would be less than significant.

Furthermore, the Education and Libraries Element includes the following policies which address potential impacts to schools. Policy 12.A.1 encourages coordination between the County and school districts for school facilities planning and site acquisition for better integration with communities, and Policy 12.A.3 promotes a quality education for children in grades K-12 in an uncrowded environment.

Payment of required statutory fees and implementation of the policies from the Education and Libraries Element would ensure that impacts to public education facilities are **less than significant**.

## Mitigation Measures

No mitigation would be required.

### Significance after Mitigation

Impacts would be less than significant without mitigation.

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