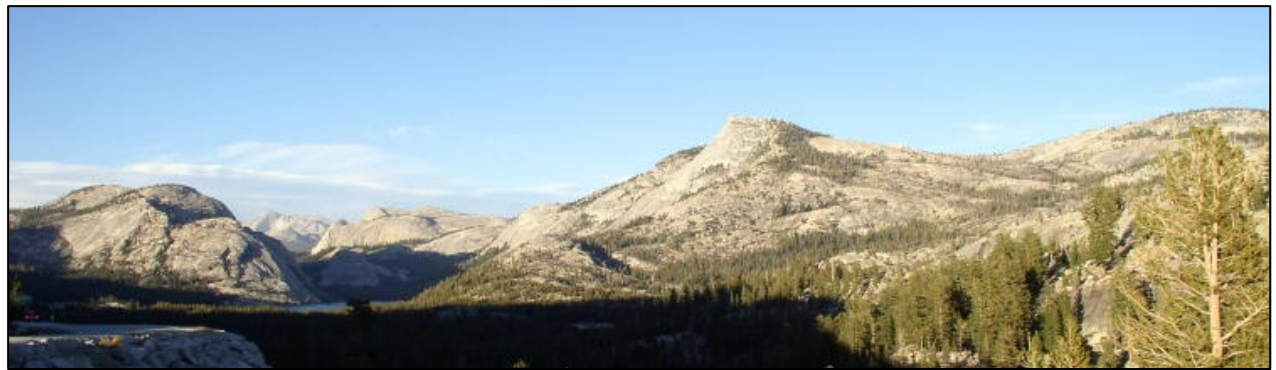




Tuolumne County General Plan Volume II: Technical Background Report



August 2018

**Prepared by the
Tuolumne County Community Resources Agency**



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Abbreviations and Acronyms

ADT	Average Daily Trips
AG	Agricultural (land use designation)
ALUC	Airport Land Use Commission
AIR	Airport (overlay land use designation)
BMP	Best Management Practices
BP	Business Park (land use designation)
CAL FIRE	California Department of Forestry and Fire Protection
CC&R's	Covenants, Conditions and Restrictions
CDBG	Community Development Block Grants
CEQA	California Environmental Quality Act
CHRIS	California Historical Resources Information System
CIP	Capital Improvements Program
CLG	Certified Local Government Program
CMP	Congestion Management Plan
CNEL	Community Noise Equivalent Level
COG	Council of Governments
DB	Decibel
DOC	Department of Conservation (BOSPC)
EIR	Environmental Impact Report (CEQA)
EIS	Environmental Impact Statement (NEPA)
ER	Estate Residential (land use designation)
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Federal Insurance Rate Map
GIS	Geographic Information System
HAP	Housing Assistance Plan
HC	Heavy Commercial (land use designation)
HCD	Housing and Community Development, State of California
HDR	High Density Residential (land use designation)
HHWE	Household Hazardous Waste Element
HI	Heavy Industrial (land use designation)
HR	Homestead Residential (land use designation)
HUD	Housing and Urban Development, United States
ISO	Insurance Services Office
JPA	Joint Powers Authority
GC	General Commercial (land use designation)
LAFCO	Local Agency Formation Commissions



L_{dn}	Day/Night Average Sound Level
L_{eq}	Equivalent Sound Level
L_{max}	Maximum Sound Level
LDR	Low Density Residential (land use designation)
LI	Light Industrial (land use designation)
LOS	Level of Service
LR	Large Lot Residential (land use designation)
LTC	Local Transportation Commission
MDR	Medium Density Residential (land use designation)
MPZ	Mineral Preserve Zone (overlay land use designation)
MRZ	Mineral Resource Zone (State classification)
MU	Mixed Use (land use designation)
NC	Neighborhood Commercial (land use designation)
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
O	Open Space (land use designation)
OES	Office of Emergency Services
OHP	California State Office of Historic Preservation
OMR	Office of Mine Reclamation
OPR	Office of Planning and Research, State of California
P	Public (land use designation)
RMDZ	Recycling Market Development Zone
R/P	Parks and Recreation (land use designation)
RR	Rural Residential (land use designation)
RTP	Regional Transportation Plan
SC	Special Commercial (land use designation)
SCORE	Service Corps of Retired Executives
SEMS	Standardized Emergency Management System
SOI	Sphere of Influence
SRA	State Responsibility Area
TCFD	Tuolumne County Fire Department
TDM	Transportation Demand Model
TDR	Transfer of Development Rights
TOT	Transient Occupancy Tax
TPZ	Timber Production Zone (land use designation)
TSM	Transportation Systems Management
VMT	Vehicle Miles Traveled
WA	Williamson Act



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INTRODUCTION

The information contained in this report provides the technical background for the goals, policies, and programs contained in the policy document of the 2018 Tuolumne County General Plan. This Technical Background Report (TBR), along with the General Plan Policy and the Community Plan Volumes make up the "General Plan Elements," both mandatory and otherwise. The mandatory elements include:

- Community Development and Design (Land Use) - Chapter 1
- Housing - Chapter 2
- Transportation (Circulation) - Chapter 4
- Noise - Chapter 5
- Public Safety - Chapter 9
- Natural Resources (Conservation & Open Space) - Chapter 16

Tuolumne County has opted to address other important elements of the County in these documents, which comprise the remaining chapters. The purpose of the TBR is to satisfy the State of California "discussion" content requirements of a General Plan. Much of the discussion overlaps with the "Setting" portion of the General Plan DEIR, which forms the foundation for impact assessment and presentation of mitigation measures.

The overall format of the General Plan is a series of individual volumes that together meet the General Plan requirements as well as provide a usable guide for community members to understand the 2018 Tuolumne County General Plan. The following is an outline of the 2018 General Plan.

- Volume I: General Plan Policy Document
- Volume II: Technical Background Report
- Volume III: Community Plans
- Volume IV: Draft Environmental Impact Report

This Technical Background Report also includes acronyms and definitions that are applicable throughout the four volumes.



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Section A The Tuolumne County Built Environment





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Chapter 1

COMMUNITY DEVELOPMENT AND DESIGN

A place where all citizens enjoy opportunities to thrive in a safe, healthy, and productive community.
- The Tuolumne County Vision

A. INTRODUCTION

The Land Use Element forms the core of the General Plan by establishing what land uses can be conducted in which locations. This element provides land use diagrams to illustrate the land use designations for all parcels within the unincorporated area of Tuolumne County. This element also addresses the density and intensity to which these land uses can be developed.

The Land Use Element identifies new areas for growth and limits growth in areas that are either "saturated" with development or have limited growth potential due to the lack of adequate public services and facilities and/or are constrained by natural characteristics that do not lend themselves to development, such as steep slopes.

Through the Land Use Element, the boundaries for urban development are established around each of the existing communities in the County and similar boundaries are identified for future communities. The spheres of influence for service districts in each of the communities have been used as a basis for establishing urban development boundaries.

The Land Use Element advocates several strategies for targeting growth. Community plans are proposed to determine land use patterns, zoning, setbacks and design standards within defined areas. Community plans have been formulated for five (5) areas:

- Jamestown
- Columbia
- East Sonora
- Tuolumne
- Mountain Springs

Other areas targeted for growth include Groveland, Big Oak Flat and Lake Don Pedro. A list of the communities identified for growth is listed in section J of this chapter. The identified communities were chosen during previous planning documents and efforts, including the Tuolumne Tomorrow: Tuolumne County Regional Blueprint Planning



Report Preferred Growth Alternative, the 1996 Tuolumne County General Plan, and other approved planning documents.

Through the implementation of programs contained in this plan the quality of life for current residents and attractions to visitors will not be compromised. The Land Use Element, along with the other elements contained in this General Plan, features policies and implementation programs to provide safe and well-designed public spaces, preserve the County's heritage, insure the accessibility of services and foster stewardship of the natural environment as the County experiences growth.

B. CORRELATION WITH TRANSPORTATION ELEMENT

The Land Use Plan should align with the road capacity of the existing and planned circulation network, both in terms of modality and level of service. Thus, this element presents a land use plan that is correlated with the road systems and policies set forth in the Transportation Element (circulation).

C. LAND USE LOCATIONS AND DISTRIBUTION

Appropriate areas for various land uses, such as housing, business and industry, are identified on the General Plan land use diagrams. Twenty (20) primary designations have been established to provide a mixture of land uses for the 1.4 million acres comprising Tuolumne County. Overlay designations have also been established to recognize areas that have constraints to development or opportunities for conserving valuable resources. The primary land use designations established by the General Plan, and depicted on the General Plan diagrams, are listed below in Table 1.1 along with the approximate acreage and percent of total acreage in the County for each land use. This is followed with a description of each designation's purpose, general uses, minimum parcel sizes and building intensity.

TABLE 1.1: DISTRIBUTION OF GENERAL PLAN LAND USE DESIGNATIONS			
GENERAL PLAN DESIGNATION		ACREAGE	% OF TOTAL ACREAGE
URBAN			
1.	Low Density Residential (LDR)	12,588	0.86%
2.	Medium Density Residential (MDR)	259	0.02%
3.	High Density Residential (HDR)	781	0.04%
4.	Neighborhood Commercial (NC)	73	0.01%
5.	General Commercial (GC)	678	0.05%
6.	Heavy Commercial (HC)	106	0.01%
7.	Mixed Use (MU)	389	0.03%
NON-URBAN			
8.	Estate Residential (ER)	15,315	1.05%
9.	Homestead Residential (HR)	4,710	0.32%
10.	Rural Residential (RR)	34,372	2.36%
11.	Large Lot Residential (LR)	9,562	0.66%
12.	Special Commercial (SC)	578	0.04%
13.	Business Park (BP)	319	0.02%
14.	Light Industrial (LI)	565	0.04%
15.	Heavy Industrial (HI)	1,046	0.07%



TABLE 1.1: DISTRIBUTION OF GENERAL PLAN LAND USE DESIGNATIONS

GENERAL PLAN DESIGNATION		ACREAGE	% OF TOTAL ACREAGE
16.	Agricultural (AG)	156,277	10.74%
17.	Timber Production (TPZ)	85,652	5.89%
18.	Public (P)	1,125,238	77.36%
19.	Open Space (O)	736	0.05%
20.	Parks and Recreation (R/P)	5,287	0.36%
Total Acreage*		1,454,562	(100%)

*Values may not sum to totals due to rounding, right-of-way, and inconsistencies in the digital data.

Urban Land Use Designations:

1. Low Density Residential (LDR)

Purpose - The LDR designation provides for family-oriented neighborhoods that feature single-family, detached homes on individual parcels. A second dwelling unit per parcel is also permitted to provide for the caring of family members and to promote affordable housing. This designation is applied to urban or urbanizing areas suitable for single-family residential neighborhoods, with individual lots ranging in area from 7,500 square feet to two acres.

General Uses - Typical land uses allowed include: detached single-family dwellings, secondary dwellings, residential accessory uses, parks, child care facilities and public facilities.

Minimum Parcel Size - 7,500 net square feet. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code

Building Intensity - Six (6) dwellings units per acre is the maximum building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code. The maximum FAR for buildings on parcels that are at least 7,500 square feet (net acreage) in area is 0.5. The maximum FAR for buildings on parcels that are less than 7,500 square feet (net acreage) is 0.6 if the parcel is improved with a single-story residence and 0.75 if the parcel is improved with a multiple-story residence. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code]

2. Medium Density Residential (MDR)

Purpose - The MDR designation provides for medium density developments, such as duplexes, triplexes and fourplexes, while preserving more open space than development in the High Density Residential designation. This designation is applied within urban areas where some lower-density multiple family housing may also be appropriate.

General Uses - Typical land uses allowed include: detached and attached single-family dwellings, smaller-scale multiple family dwellings, such as duplexes, triplexes and fourplexes, residential accessory uses, parks, child care facilities, and public facilities.

Minimum Parcel Size - 7,500 net square feet. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - Twelve (12) dwelling units per acre is the maximum building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code. Additional units are also possible



through a density bonus for approved undeveloped projects that are modified to be consistent with the Distinctive Communities Growth Scenario. The maximum FAR for buildings on parcels that are at least 7,500 square feet (net acreage) in area is 0.5. The maximum FAR for buildings on parcels that are less than 7,500 square feet (net acreage) is 0.6 if the parcel is improved with a single-story residence and 0.75 if the parcel is improved with a multiple-story residence. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code.

3. High Density Residential (HDR)

Purpose - The HDR designation provides for residential neighborhoods of grouped or clustered single-family dwellings, duplexes, apartments, dwelling groups, condominiums, mobilehome parks and townhouses to economically and efficiently meet a variety of urban housing needs while insuring, through site review procedures, that such developments will have the least possible impact on the natural environment, be designed and built in accordance with the latest engineering and site layout standards and offer the most possible amenities which contribute to a high quality of life for the residents of such housing. This designation is applied within urban areas where residential development will be near transportation corridors, downtowns, defined community centers, major commercial centers, schools and community services.

General Uses - Typical land uses allowed include: detached and attached single-family dwellings, secondary dwellings, all types of multiple family dwellings, such as duplexes, apartments and senior housing projects, residential accessory uses, parks, child care facilities, and public facilities.

Minimum Parcel Size - 12,500 net square feet. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - Fifteen (15) dwelling units per acre is the maximum building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code. Additional units are also possible through a density bonus for approved undeveloped projects that are modified to be consistent with the Distinctive Communities Growth Scenario. The maximum FAR for buildings on parcels that are at least 12,500 square feet (net acreage) in area is 0.5. The maximum FAR for buildings on parcels that are less than 12,500 square feet (net acreage) is 0.6 if the parcel is improved with a single-story residence and 0.75 if the parcel is improved with a multiple-story residence. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code.

4. Neighborhood Commercial (NC)

Purpose - The NC designation provides for limited commercial uses in areas which are intended to serve the nearby residential areas. This designation is found within urban areas, near population centers, to provide small scale retail and office operations, in enclosed buildings not exceeding 50 feet in height.

General Uses - Development within this designation will provide a broad range of convenience and comparison goods and services, such as banks, barber shops, clothing sales, drug stores and grocery stores. These small-scale establishments would generally have fewer clients and automobiles than those associated with a businesses in the GC designation because the NC designation is intended to serve a smaller market area.

Minimum Parcel Size - 2,500 net square feet. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - One (1) dwelling per 2,500 square feet is the maximum residential building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing



in accordance with the California Government Code or the Tuolumne County Ordinance Code or to allow single room occupancies in hotels and motels to implement the Housing Element. The maximum FAR for buildings is 2.0. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code. Additional building coverage is possible through the density bonus regulations of the Government Code related to the provision of child care facilities.

5. General Commercial (GC)

Purpose - The GC designation provides for a variety of sales and service establishments which serve both the residents of Tuolumne County and its visitors. This designation is found within urban areas and along highway corridors to provide large scale retail and office operations in buildings not exceeding 50 feet in height. Accessory outdoor storage and display areas are permitted under this designation. Establishments in this category have a larger market area and greater volume of customers than those under the NC designation. Buildings in this designation are limited to 50 feet in height.

General Uses - Typical establishments permitted under this designation include shopping centers, hotels, motels, restaurants, bars, department stores, gift shops and professional offices.

Minimum Parcel Size - 2,500 net square feet. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - One (1) dwelling per 2,500 square feet is the maximum residential building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code or to allow single room occupancies in hotels and motels to implement the Housing Element. The maximum FAR for buildings is 2.0. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code. Additional building coverage is possible through the density bonus regulations of the Government Code related to the provision of child care facilities.

6. Heavy Commercial (HC)

Purpose - The HC designation provides for a variety of sales and service establishments, including outdoor sales and wholesale businesses, which serve both the residents of Tuolumne County and its visitors. This designation is found within urban areas to provide for wholesale and heavy commercial uses and services necessary within the County. In addition to the uses permitted in the NC and GC designations, HC provides for limited uses that are light industrial in nature, such as general manufacturing, processing and refining. Buildings in this designation are limited to 50 feet in height.

General Uses - Typical establishments permitted under this designation include shopping centers, hotels, motels, restaurants, bars, department stores, professional offices, automobile sales, outdoor sales and storage, and equipment repair facilities.

Minimum Parcel Size - 2,500 net square feet. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - One (1) dwelling per 2,500 square feet is the maximum residential building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code or to allow single room occupancies in hotels and motels to implement the Housing Element. The maximum FAR for buildings is 2.0. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County



Ordinance Code. Additional building coverage is possible through the density bonus regulations of the Government Code related to the provision of child care facilities.

7. Mixed Use (MU)

Purpose - The MU designation provides for a mixture of residential, commercial and recreational facilities in an urban setting. This designation is applied within urban areas where a mixture of these uses is desirable near transportation corridors, downtowns, defined community centers, major commercial centers, schools and community services.

General Uses - Typical land uses allowed include: detached and attached single-family dwellings, all types of multiple family dwellings, such as duplexes, apartments, senior housing projects, commercial facilities, parks, child care facilities, and public facilities.

Minimum Parcel Size - 2,500 net square feet. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - Fifteen (15) dwelling units per acre is the maximum building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code. Additional units are also possible through a density bonus for development projects that include both residential and commercial uses. The maximum FAR for buildings is 2.0. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code. Additional building coverage is possible through the density bonus regulations of the Government Code related to the provision of child care facilities.

Non-Urban Land Use Designations:

8. Estate Residential (ER)

Purpose - The ER designation provides country-estate type living conditions while maintaining limited areas of open space dedicated to agricultural pursuits, grazing or left undisturbed. This designation serves as a buffer between urban and urbanizing areas and areas where public services are limited.

General Uses - Typical uses allowed in the ER designation include one single family dwelling per parcel, one secondary dwelling per parcel, agricultural uses, such as crop production and grazing, and public facilities.

Minimum Parcel Size - 2 gross acres. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - One (1) primary dwelling unit per two (2) acres is the maximum building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code. The maximum FAR for buildings is 0.5. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code.

9. Homestead Residential (HR)

Purpose - The HR designation provides country-estate type living conditions while maintaining areas of open space dedicated to agricultural pursuits, grazing or left undisturbed. This designation, with its maximum residential density of one (1) dwelling per three (3) acres, is intended to comply with the density restrictions of the Airport Land Use Compatibility Plan for the areas around the Columbia and Pine Mountain Lake Airports; consequently, this



designation is concentrated within the jurisdictional boundaries of that plan for those airports but can also be found in other areas which have limited public services and where a buffer between urban and urbanizing areas and rural areas is desired.

General Uses - Typical uses allowed in the HR designation include one single family dwelling per parcel, one secondary dwelling per parcel, agricultural uses, such as crop production and grazing, and public facilities.

Minimum Parcel Size - 3 gross acres. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - One (1) primary dwelling per three (3) acres is the maximum building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code. The maximum FAR for buildings is 0.5. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code.

10. Rural Residential (RR)

Purpose - The RR designation provides country-estate type living conditions while maintaining large areas of open space dedicated to agricultural pursuits, grazing or left undisturbed. This designation is found in areas which have limited public services and serves as a buffer between urban and urbanizing areas and agricultural land.

General Uses - Typical uses allowed in the RR designation include one single family dwelling per parcel, one secondary dwelling per parcel, agricultural uses, such as crop production and grazing, roadside stands for agricultural products, and public facilities.

Minimum Parcel Size - 5 gross acres. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - One (1) primary dwelling per five (5) acres is the maximum building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code or for agricultural laborer housing in accordance with the California Health and Safety Code or the California Government Code. The maximum FAR for buildings is 0.2. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code.

11. Large Lot Residential (LR)

Purpose - The LR designation provides country-estate type living conditions while maintaining large areas of open space dedicated to agricultural pursuits, grazing or left undisturbed. This designation is found in areas which have limited public services and serves as a buffer between urban and urbanizing areas and agricultural land.

General Uses - Typical uses allowed in the LR designation include one single family dwelling per parcel, one secondary dwelling when the parcel is twenty (20) acres or larger, agricultural uses, such as crop production and grazing, roadside stands for agricultural products, and public facilities.

Minimum Parcel Size - 10 gross acres. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - One (1) dwelling per ten (10) acres is the maximum building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code or for agricultural laborer housing in



accordance with the California Health and Safety Code or the California Government Code. The maximum FAR for buildings is 0.2. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code.

12. Special Commercial (SC)

Purpose - The SC designation provides for a variety of sales and service establishments which serve both the residents of Tuolumne County and its visitors in areas that do not have public water and sewer service. This designation is found primarily along highway corridors to provide commercial facilities that are easily accessible to the County's tourists.

General Uses - Typical establishments permitted under this designation include hotels, motels, recreational vehicle parks, restaurants, gift shops, gas stations and mini-markets.

Minimum Parcel Size - 2 gross acres. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - One (1) dwelling per two (2) acres is the maximum residential building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code or to allow single room occupancies in hotels and motels to implement the Housing Element. The maximum FAR for buildings is 1.0. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code. Additional building coverage is possible through the density bonus regulations of the Government Code related to the provision of child care facilities

13. Business Park (BP)

Purpose - The BP designation provides for a mixture of industrial and commercial land uses with an emphasis on manufacturing, processing, assembly, storage, distribution, wholesale businesses, and research and development activities in campus-like business or industrial park settings. This designation is applied to areas with good access to major truck transportation routes and rail lines, located near concentrated residential areas so that employee commute times and distances are minimized.

General Uses - Typical land uses allowed include all types of manufacturing and processing activities, wholesale businesses, business support services, retail and service commercial uses necessary to support manufacturing and processing activities and those employed in those activities, public utility and safety facilities and similar and compatible uses. One (1) dwelling unit per parcel is allowed under this designation.

Minimum Parcel Size - 2,500 net square feet. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - One (1) dwelling per 2,500 square feet is the maximum residential building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code. The maximum FAR for buildings is 1.0. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code. Additional building coverage is possible through the density bonus regulations of the Government Code related to the provision of child care facilities.



14. Light Industrial (LI)

Purpose - The LI designation provides for industrial land uses with an emphasis on manufacturing, processing, assembly, storage, distribution, and research and development activities. This designation is applied to areas with good access to major truck transportation routes and rail lines, located near concentrated residential areas so that employee commute times and distances are minimized.

General Uses - Typical land uses allowed include all types of manufacturing and processing activities, business support services and public facilities. One (1) dwelling unit per parcel is allowed under this designation.

Minimum Parcel Size - 2,500 net square feet. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - One (1) dwelling per 2,500 square feet is the maximum residential building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code. The maximum FAR for buildings is 1.0. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code. Additional building coverage is possible through the density bonus regulations of the Government Code related to the provision of child care facilities.

15. Heavy Industrial (HI)

Purpose - The HI designation provides for all the same uses as the LI designation but also provides for uses that are normally considered incompatible with residential development. This designation is applied to areas with good access to major truck transportation routes and rail lines that are located away from concentrated residential areas to minimize impacts to the County residents.

General Uses - Typical land uses allowed include all types of manufacturing and processing activities, sawmills, business support services, auto wrecking yards, junk storage and public facilities. One (1) dwelling unit per parcel is allowed under this designation.

Minimum Parcel Size - 2,500 net square feet. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - One (1) dwelling per 2,500 square feet is the maximum residential building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code. The maximum FAR for buildings is 1.0. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code. Additional building coverage is possible through the density bonus regulations of the Government Code related to the provision of child care facilities.

16. Agricultural (AG)

Purpose - The AG designation provides for the production of food, feed, fiber, nursery and apiary commodities and other productive or potentially productive lands where commercial agricultural uses can exist without creating conflicts with other land uses or where potential conflicts can be minimized. This designation is found throughout the County but is concentrated in the western part of the County.

General Uses - Typical land uses allowed include crop production, orchards and vineyards, grazing, pasture and rangeland, recreational farming, resource extraction activities, facilities that directly support agricultural operations and public facilities. Allowable residential development in areas designated AG include one single family dwelling



and one additional single family dwelling per parcel, caretaker and employee housing and agricultural laborer housing.

Minimum Parcel Size - 37 gross acres. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - Two (2) dwellings per thirty-seven (37) acres is the maximum building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code or for agricultural laborer housing in accordance with the California Health and Safety Code or the California Government Code. The maximum FAR for buildings is 0.1. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code.

17. Timber Production (TPZ)

Purpose - The TPZ designation provides for the growing and harvesting of timber and other forest products in concert with limited, low-intensity public and private commercial recreational uses. This designation is found primarily in the eastern part of the County at elevations above 3,000' and is interspersed with federally owned land within the Stanislaus National Forest and Yosemite National Park.

General Uses - Typical land uses allowed in this designation include all commercial timber production operations and facilities, agricultural operations, mineral and other resource extraction operations, recreation uses such as public utility and safety facilities. Allowable residential development in areas designated TPZ include one single family dwelling per parcel and additional single family dwellings at a maximum density of one dwelling unit per thirty-seven (37) acres.

Minimum Parcel Size - 160 gross acres. The minimum parcel size may be reduced in accordance with the Z'Berg-Warren-Keene-Collier Forest Taxation Reform Act of 1976, as amended.

Building Intensity - One (1) dwelling per thirty-seven (37) acres is the maximum building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code. The maximum FAR for buildings is 0.05. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code.

18. Public (P)

Purpose - The P designation identifies lands that are owned by public agencies and recognizes that these lands are exempt from County land use regulations. This designation applies to lands, such as the Stanislaus National Forest, Yosemite National Park, Columbia State Historic Park, Railtown 1897 State Historic Park, and lands under the jurisdiction of the Bureau of Land Management, Bureau of Reclamation, public schools, public utilities and other public agencies, as well as the County's own property.

General Uses - This designation allows all types of public uses, such as utilities, government offices, schools, airports, libraries, recreational facilities and resource management and utilization.

Minimum Parcel Size - None

Building Intensity – Without restrictions.



19. Open Space (O)

Purpose - The O designation provides for the protection of important natural and cultural resources, serves as a buffer between incompatible land uses and limits development in hazardous areas. This designation can be used throughout the County to preserve scenic resources, archaeological resources, unique topography, vegetation, habitat, stream corridors, prominent ridge tops and watersheds and to limit development in floodplains, unstable slopes and fault zones.

General Uses - Typical land uses allowed in the Open Space designation are limited to low intensity agricultural uses, recreational uses without structures, public utility and safety facilities and accessory uses.

Minimum Parcel Size - None

Building Intensity - No building is allowed in this designation.

20. Parks and Recreation (R/P)

Purpose - The R/P designation provides for recreational uses of a commercial nature to serve the tourist industry as well as providing leisure activities for the County's residents. This designation is found primarily along the County's highway corridors and is also interspersed in the Stanislaus National Forest and Yosemite National Park.

General Uses - Typical land uses allowed in R/P designation include parks, camping facilities, recreational vehicle parks, ski and other resort facilities, marinas, and commercial uses in support of such facilities and public utility and safety facilities.

Minimum Parcel Size - 5,000 net square feet. The minimum parcel size may be reduced for the provision of affordable housing in accordance with the Tuolumne County Ordinance Code.

Building Intensity - One (1) dwelling unit per 5,000 square feet is the maximum residential building intensity under this designation; however, additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code or to allow single room occupancies in hotels and motels to implement the Housing Element. The maximum FAR for buildings is 0.5. The maximum FAR may be exceeded for affordable housing units in accordance with the Tuolumne County Ordinance Code.

D. OVERLAY DESIGNATIONS

Overlay designations are utilized to identify and recognize areas that contain features or characteristics that may affect development potential or provide opportunities for conservation of resources. Through the overlay designations, policies and programs to address the special circumstances of these areas can be formulated and implemented.

MPZ - Mineral Preserve (Overlay)

Purpose - The -MPZ overlay designation provides for the extraction and processing of mineral resources. This overlay is used to identify land that has been classified as either Mineral Resource Zone MRZ-2a or MRZ-2b by the State Mining and Geology Board under the State Classification System and meets criteria for relationship to surrounding land uses, access, and other issues. The -MPZ overlay designation is found along the Mother Lode gold ore zone, the carbonate belt from Columbia to Algerine, and the table mountain basalt as an aggregate source. This overlay designation will be used to direct the development potential of the designated properties towards the types of development that are compatible with possible mineral resource extraction.



General Uses - Typical land uses allowed in this overlay designation include extraction and processing of mineral resources, agricultural operations, industrial uses, business parks and public utility and other public facilities. To accomplish this, the primary land use designations that are compatible with the -MPZ overlay are Public (P), Heavy Industrial (HI), Light Industrial (LI), Business Park (BP), Agricultural (AG), Large Lot Residential (LR), and Rural Residential (RR). The actual primary land use designation appropriate for each property that has the -MPZ overlay shall be determined by the characteristics of that site, including access, availability of services, and neighboring land uses. With the exception of the former MPZ primary land use designation, land use designations for properties shall not be changed from those adopted on December 26, 1996, in conjunction with the addition of the -MPZ overlay on that property. However, all future amendments to the land use designations for properties that have the -MPZ overlay shall be limited to those described above as compatible with the -MPZ overlay.

Minimum Parcel Size - Determined by the primary land use designation.

Building Intensity - Determined by the primary land use designation.

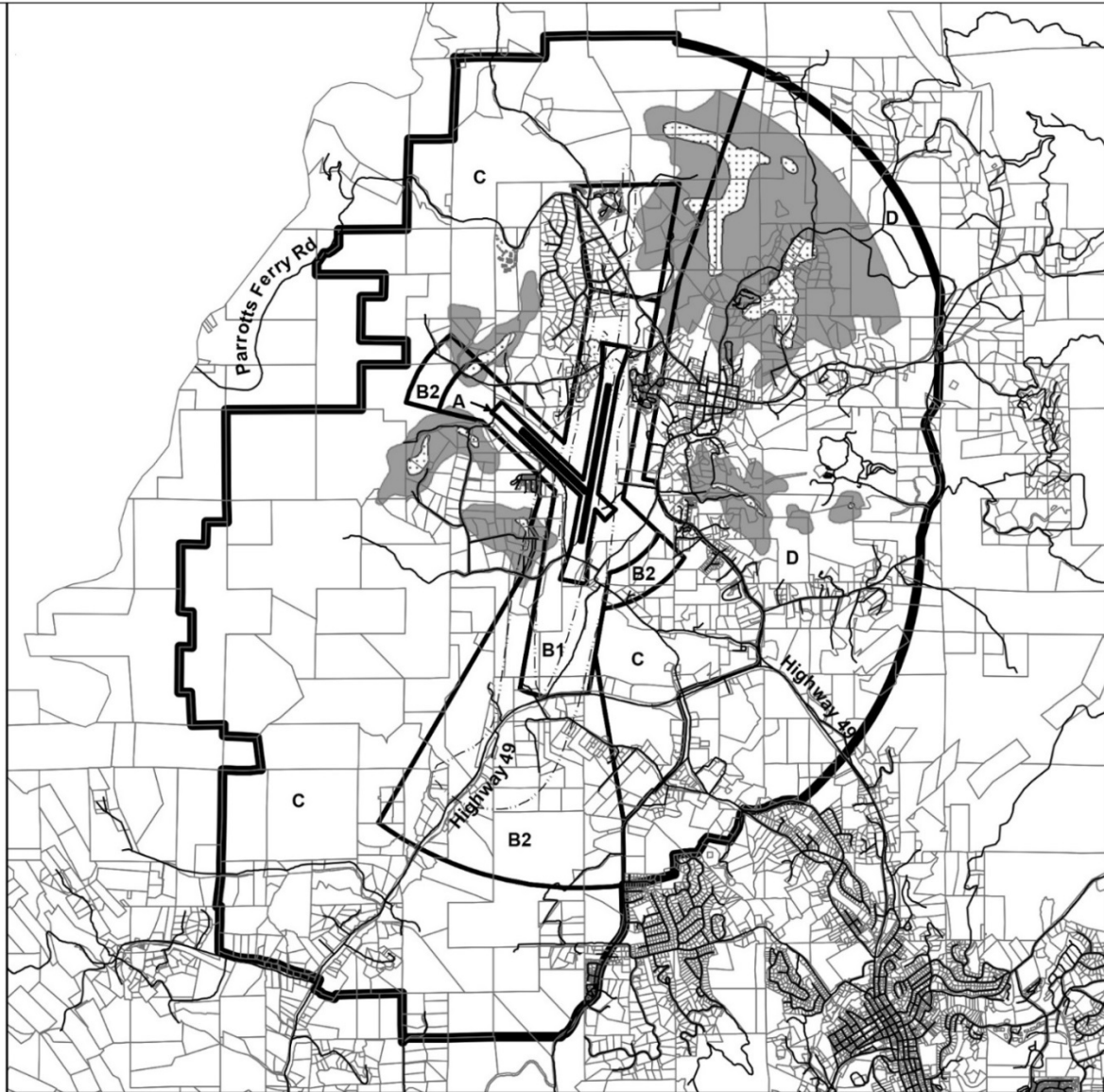
AIR - Airport (Overlay)

Purpose – The –AIR overlay designation provides for the orderly development of land surrounding the public use airports within the County to the extent that these areas are not already devoted to incompatible uses. The purpose of this designation is to protect public health, safety and welfare by minimizing the public's exposure to excessive noise and safety hazards associated with use of the airports. Development within this designation must comply with the Tuolumne County Airport Land Use Compatibility Plan in addition to other requirements applicable to land development in Tuolumne County. The –"AIR" designation is found in the areas surrounding the County's public use airports, specifically encompassing all area within the airport influence area boundaries as defined in the Airport Land Use Compatibility Plan (see Figures 1.1 and 1.2).

General Uses – Typical land uses allowed in the –"AIR" overlay designation include those consistent with the primary land use designation of a parcel as modified by the policies of the Tuolumne County Airport Land Use Compatibility Plan. Uses otherwise allowed by a primary land use designation may be modified by the policies of the Tuolumne County Airport Land Use Compatibility Plan.

Minimum Parcel Size – Determined by the primary land use designation as modified by the policies of the Tuolumne County Airport Land Use Compatibility Plan.

Building Intensity – Determined by the primary land use designation as modified by the policies of the Tuolumne County Airport Land Use Compatibility Plan.



- A** Runway Protection Zone
- B1** Approach - Departure Zone
- B2** Extended Approach - Departure Zone
- C** Common Traffic Pattern Zone
- D** Other Airport Environs

- Critical Height Zone Overlay
- Height Caution Zone Overlay
- Noise Impact Zones CNEL 55, 60, & 65 dBa
- Runway
- Roads

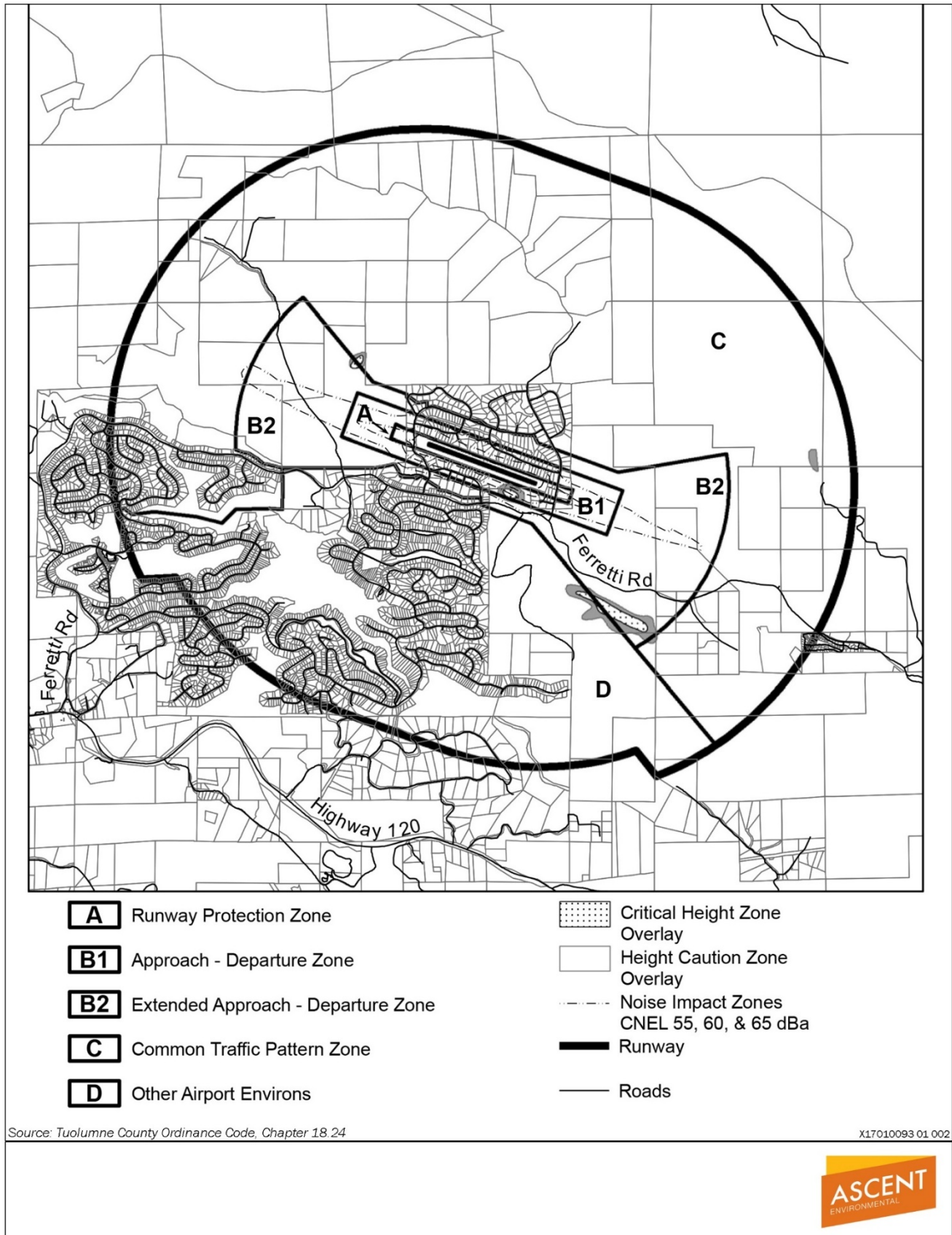
Source: Tuolumne County Ordinance Code, Chapter 18.24

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E. OTHER LANDS OF NOTE

Open Space and Greenways (see Open Space, Chapter 16.G)

Timberlands

Within Tuolumne County, timberlands exist on public and private properties. Timberland Production Zone TPZ, a General Plan Land Use designation, amounts to 85,652 acres, or 5.89% of public and private land area of Tuolumne County. Details about County timberlands are described in greater detail in Chapter 7, Section A.

Floodplains

Tuolumne County has many waterways consisting of ephemeral drainages, intermittent streams, perennial streams and rivers. The County's most recent digital FIRMs, which came into effect on April 16, 2009, define the special flood hazard areas within the County. Details about floodplains in the County are described in greater detail in Chapter 17, Section E.

Military Lands

There are no military-bases located in Tuolumne County.

Airports

Tuolumne County has two public airports, Columbia Airport and Pine Mountain Lake Airport. The Tuolumne County Airport Land Use Compatibility Plan (ALUCP; Tuolumne County ALUC 2003) promotes compatibility between these airports and the land uses that surround them. Details about County airports and related land use regulations are described in greater detail in Chapter 4, Section F.

F. PUBLIC FACILITIES

Water, Sewer and Solid Waste Management (see Chapter 3)

Public Safety (see Chapter 9)

Parks and Recreation (see Chapter 11)

Education and Libraries (see Chapter 12)

G. LAND USE INFORMATION AND MAPS

Tuolumne County is comprised mostly of land under ownership of a government agency, such as United States Forest Service, Yosemite National Park, Bureau of Land Management, schools, Caltrans, irrigation districts, etc. Approximately 77 percent of the land within the County is in public ownership, and 23 percent is considered private land. The land use designations of the Tuolumne County General Plan are presented herein through tables and maps, including the official Land Use Diagram. Table 1.1 shows the land use designations by acreage. Figure 1.3 shows the breakdown of land use designations in private ownership.



TABLE 1.1: GENERAL PLAN UPDATE LAND USE DESIGNATIONS BY ACREAGE

General Plan Designation	Acreage	Percent of Total Acreage
High Density Residential (HDR)	781	0.05
Medium Density Residential (MDR)	259	0.02
Low Density Residential (LDR)	12,588	0.86
Estate Residential (ER)	15,315	1.05
Homestead Residential (HR)	4,710	0.32
Rural Residential (RR)	34,372	2.36
Large Lot Residential (LR)	9,562	0.66
Agricultural (AG)	156,277	10.74
Timber Production (TPZ)	85,652	5.89
Open Space (O)	736	0.05
Public (P)	1,125,238	77.36
Parks and Recreation (R/P)	5,287	0.36
Neighborhood Commercial (NC)	73	<0.01
General Commercial (GC)	678	0.05
Heavy Commercial (HC)	106	0.01
Special Commercial (SC)	578	0.04
Business Park (BP)	319	0.02
Light Industrial (LI)	565	0.04
Heavy Industrial (HI)	1,046	0.07
Mixed Use (MU)	389	0.03
Total Acreage ¹	1,454,531	100
Notes: ¹ Values may not sum to totals due to rounding, right-of-way, and inconsistencies in the digital data.		

Of the property that is under private ownership, nearly half of that land is designated Agricultural (AG). Figure 1.3 shows the land use designations for private lands.

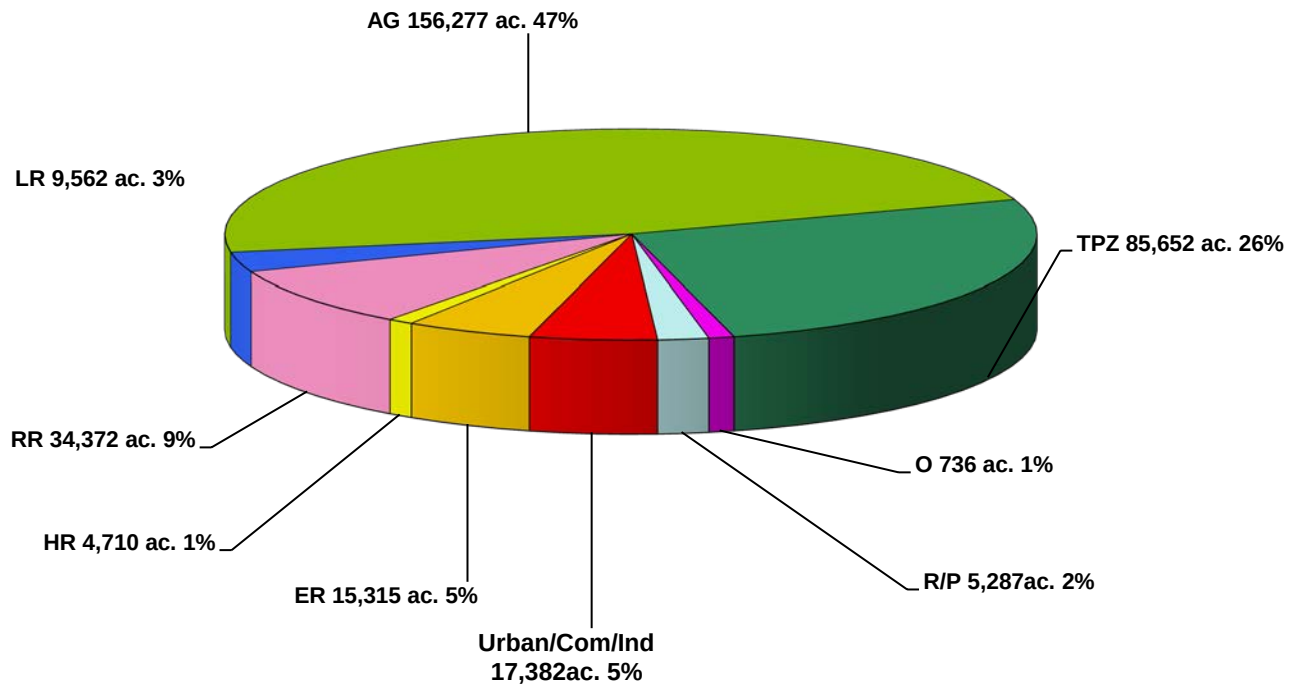
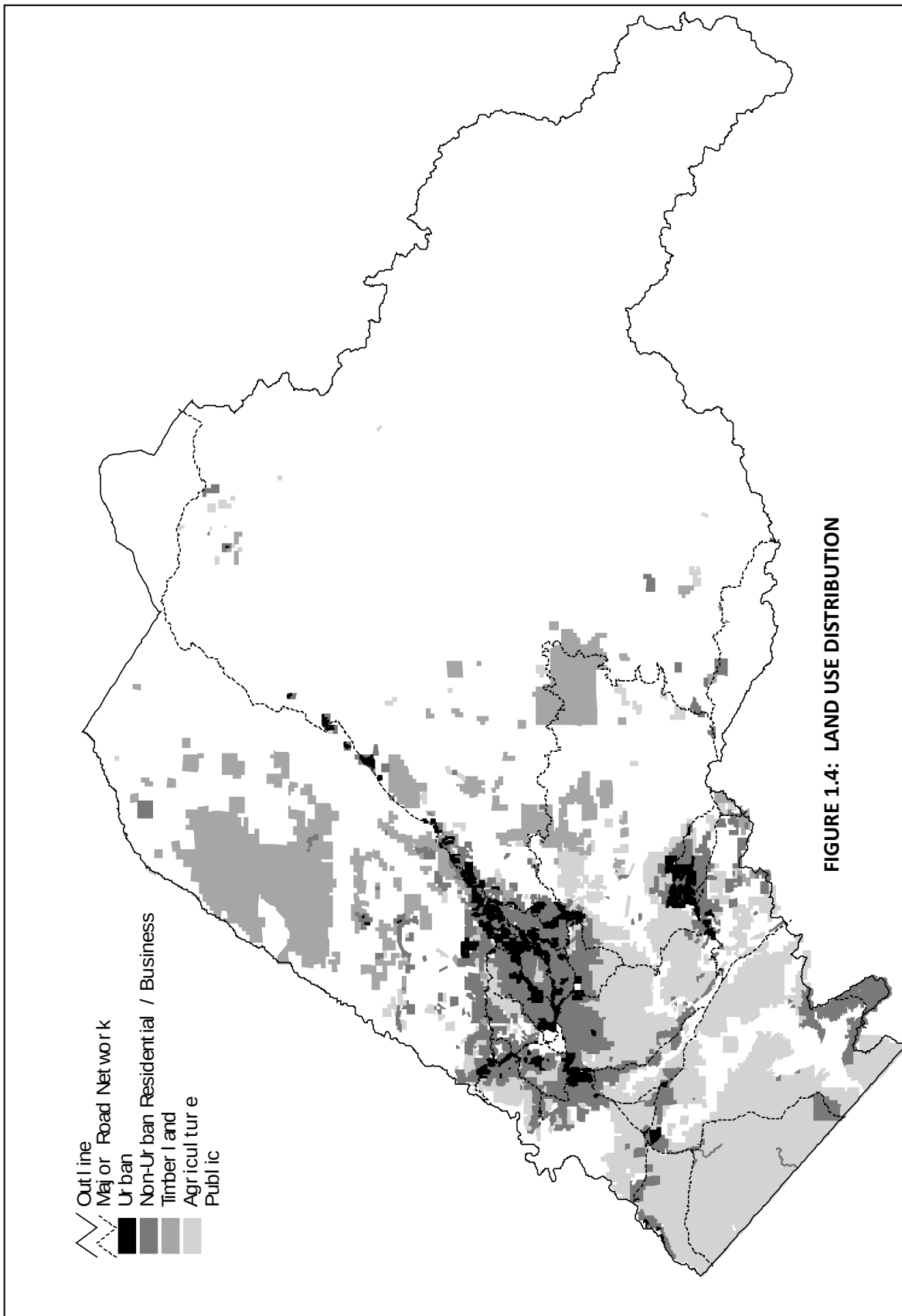


FIGURE 1.3: LAND USE DESIGNATIONS FOR PRIVATE LAND



Generalized Distribution Map

To illustrate the distribution of the land use designations established by the General Plan, the twenty (20) designations have been generalized into five categories and depicted in Figure 1.4: (1) Urban - Neighborhood Commercial (NC); General Commercial (GC); Heavy Commercial (HC); High Density Residential (HDR); Medium Density Residential (MDR); Low Density Residential (LDR); and, Mixed Use (MU). (2) Non Urban (residential/commercial) - Estate Residential (ER); Homestead Residential (HR); Rural Residential (RR); Large Lot Residential (LR); Special Commercial (SC); Business Park (BP); Light Industrial (LI); and, Heavy Industrial (HI). (3) Timberlands - Timber Production (TPZ). (4) Agricultural - Agricultural (AG). (5) Public - Open Space (O); Public (P); and, Parks and Recreation (R/P).



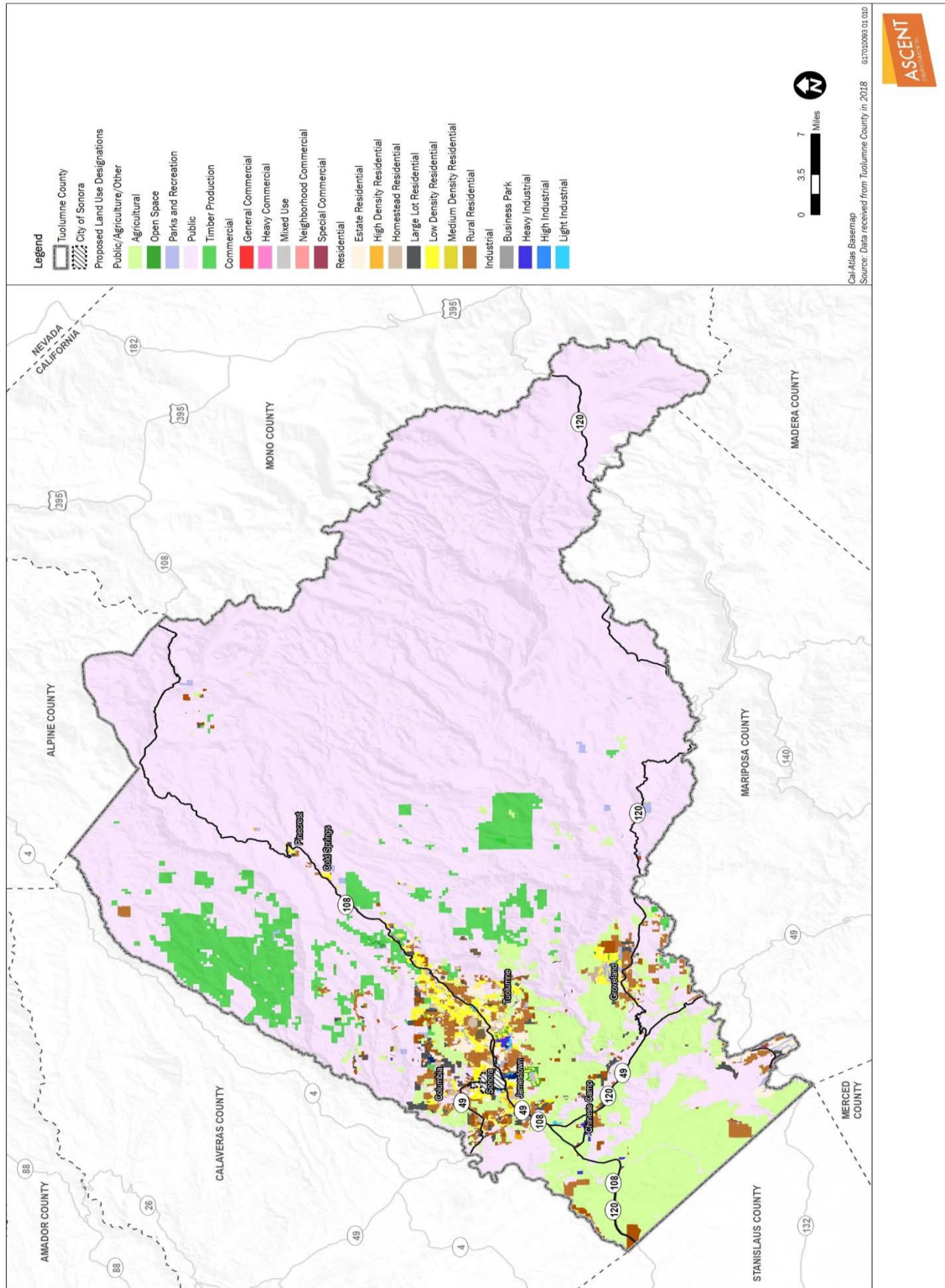


Official Land Use Diagram

The General Plan Diagram indicates the type, intensity and distribution of land uses throughout the unincorporated portion of Tuolumne County. Territory within the City of Sonora, the only incorporated community in Tuolumne County, is not included because the City maintains its own separate General Plan and exercises land use authority within its jurisdiction that are distinct and separate from those of the County of Tuolumne. The land use diagram is shown in Figure 1.5. The diagram is also maintained on the County's website for ease of viewing.

Changes to Land Use Designations

Changes to land use designations as shown on the General Plan Land Use Diagrams adopted by the Board of Supervisors require amendments to the General Plan.





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H. LAND USE POPULATION AND BUILDING DENSITY STANDARDS

In addition to characterizing land use designations according to types of allowable land uses, the General Plan must, according to State law, specify the standards for population density and building intensity for each land use designation.

Population Density

Standards for building population intensity for residential uses are stated in this General Plan in terms of the maximum number of dwelling units per acre or the number of principal dwellings allowed per legal parcel. These standards provide for averaging the number of dwelling units or parcels on a site to facilitate clustering and innovation in the layout of residential development provided the total number of units does not exceed the maximum number allowed under the site's respective land use designations. Population density for residential uses can be derived by multiplying the maximum number of dwellings per acre by the average number of persons per dwelling unit. For the purposes of this General Plan, the average number of persons per single family dwelling is assumed to be 2.29 while that number is increased to 2.40 persons per multiple family dwelling. These numbers are consistent with findings of the 2010 Census concerning the number of persons per household in Tuolumne County.

Building Intensity

Standards for building intensity are also stated in terms of maximum allowable floor-area ratios (FAR). A floor-area ratio is the ratio of the gross building square footage permitted on a parcel to the square footage of the parcel. For example, on a parcel with 10,000 net square feet of land area, FAR of 1.00 will allow 10,000 square feet of gross building floor area to be built, regardless of the number of stories in the building (e.g., 5,000 square feet per floor on two floors or 10,000 square feet on one floor). On the same lot, a FAR of 0.5 would allow 5,000 square feet of floor area and a FAR of 0.25 would allow 2,500 square feet. The diagram below illustrates how buildings of one, two and three stories could be developed on a given parcel with a FAR of 1.0.

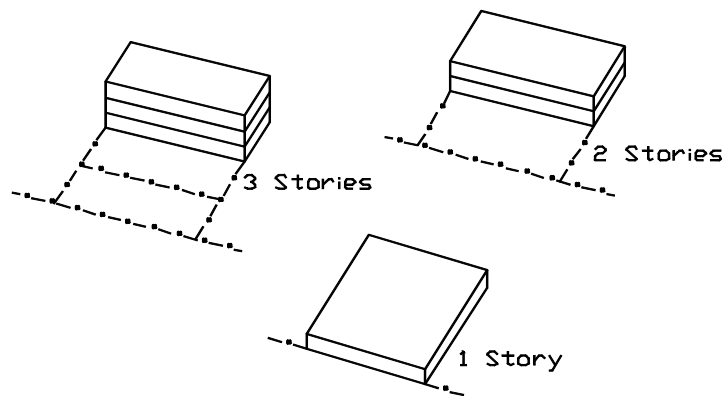


FIGURE 1.6: VARIOUS BUILDING CONFIGURATIONS REPRESENTING A FLOOR-AREA RATIO OF 1.0 ON THE SAME PARCEL



Table 1.2 lists each primary land use designation and the standards for minimum parcel size, the maximum number of dwelling units per parcel for residential development and the maximum allowable floor-area ratio.

TABLE 1.2: MAXIMUM DENSITY AND INTENSITY STANDARDS					
URBAN DESIGNATIONS					
PRIMARY LAND USE DESIGNATION			MAXIMUM POPULATION DENSITY¹ (Per Acre)	MAXIMUM BUILDING INTENSITY²	
				Dwelling Units (du) Per Minimum Parcel Size	Floor Area Ratio (FAR)
HDR	High Density Residential		36 persons	4 du per 12,500 sq. ft. 15 du per 1 acre ³	0.5 ¹⁰
MDR	Medium Density Residential		28.8 persons	2 du per 7,500 sq. ft. 12 du per 1 acre ³	0.5 ¹¹
LDR	Low Density Residential		13.74 persons	1 du per 7,500 sq. ft. 6 du per 1 acre ³	0.5 ¹¹
MU	Mixed Use ⁴		36 persons	1 du per 2,500 sq. ft. 15 du per 1 acre ³	2.0 ^{5, 7}
NC	Neighborhood Commercial		39.9 persons	1 du per 2,500 sq. ft. ¹²	2.0 ^{5, 7}
GC	General Commercial		39.9 persons	1 du per 2,500 sq. ft. ¹²	2.0 ^{5, 7}
HC	Heavy Commercial		39.9 persons	1 du per 2,500 sq. ft. ¹²	2.0 ^{5, 7}

NON URBAN DESIGNATIONS				
PRIMARY LAND USE DESIGNATION		MAXIMUM POPULATION DENSITY¹ (Per Acre)	MAXIMUM BUILDING INTENSITY²	
			Dwelling Units (du) Per Minimum Parcel Size	Floor Area Ratio (FAR)
ER	Estate Residential	1.15 persons	1 du per 2 acres ³	0.5
HR	Homestead Residential	0.76 persons	1 du per 3 acres ³	0.5
RR	Rural Residential	0.46 persons	1 du per 5 acres ^{3, 9}	0.2
LR	Large Lot Residential	0.23 persons	1 du per 10 acres ^{3, 9}	0.2
AG	Agricultural	0.12 persons	2 du per 37 acres ^{3, 9}	0.1
TPZ	Timber Production	0.06 persons	4 du per 160 acres ^{3, 6}	0.05
O	Open Space	N/A	N/A	N/A
P	Public	N/A	N/A	N/A
R/P	Parks and Recreation	20 persons	1 du per 5,000 sq. ft. ¹²	0.5
SC	Special Commercial	1.15 persons	1 du per 2 acres ¹²	1.0 ^{5, 7}
BP	Business Park	39.9 persons	1 du per 2,500 sq. ft.	1.0 ^{5, 7}
LI	Light Industrial	13.3 persons	1 du per 7,500 sq. ft.	1.0 ^{5, 7}
HI	Heavy Industrial	13.3 persons	1 du per 7,500 sq. ft.	1.0 ^{5, 7}



Footnotes to TABLE 1.2: "MAXIMUM DENSITY AND INTENSITY STANDARDS"

1. "Population density" is the number of residential units permitted on a single parcel multiplied by the "mean household size" as determined by the 2010 U.S. Census. In the case of single family dwellings, the "mean household size" is 2.29 persons. For multiple family dwellings, it is 2.40 persons. For example: LDR = $6 \times 2.29 = 13.74$ persons per acre; HDR = $15 \times 2.40 = 36$ persons per acre; AG = $(2 \times 2.29)/37 = 0.12$ persons per acre. The maximum population density standards established herein may be exceeded through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code or for agricultural laborer housing in accordance with the California Health and Safety Code or the California Government Code or to implement the policies and programs of the Housing Element. The maximum population density standards established herein may be modified by the requirements of the overlay land use designations.
2. "Building intensity" defines the intensity of the land use. The building intensity of residential land uses is established by the maximum number of dwelling units allowed per parcel or per acre and also by the ratio of the coverage of all buildings on a parcel which is known as the floor area ratio (FAR). The FAR is also used to establish the building intensity for non-residential land uses. The maximum building intensity standards established herein may be exceeded for affordable housing units, through a density bonus for the provision of child care facilities by commercial and industrial development in accordance with the California Government Code, or as otherwise provided by State statutes or for agricultural laborer housing in accordance with the California Health and Safety Code or the California Government Code. The maximum building intensity standards established herein may be modified by the requirements of the overlay land use designations.
3. Additional units are possible through a density bonus for the provision of affordable housing in accordance with the California Government Code or the Tuolumne County Ordinance Code.
4. The MU designation is intended to allow a mixture of commercial, residential and recreational land uses.
5. In addition to the floor area ratio (FAR), building intensity will be regulated for permitted or conditionally permitted uses by development standards, such as parking, landscaping and building setbacks.
6. Under the TPZ designation, residential uses shall be limited to not exceed one (1) dwelling per 37 acres and shall be reviewed for consistency with the Z'Berg-Warren-Keene-Collier Forest Taxation Reform Act of 1976, as amended.
7. Additional building coverage is possible through the density bonus regulations of the California Government Code related to the provision of child care facilities, or as otherwise provided by State statutes.
8. To facilitate clustering and innovation in the layout of residential development, these standards provide for averaging the number of allowable dwelling units or parcels on a site, consisting of one or more parcels, provided the total number of units does not exceed the maximum number allowed under the site's respective land use designations.
9. Additional units are possible for agricultural laborer housing in accordance with the California Health and Safety Code or the California Government Code.
10. The maximum FAR for parcels less than 12,500 square feet (net acreage) in the HDR land use designation is 0.6 if the parcel is improved with a single-story residence and 0.75 if the parcel is improved with a multiple-story residence.
11. The maximum FAR for parcels less than 7,500 square feet (net acreage) in the LDR and MDR land use designations is 0.6 if the parcel is improved with a single-story residence and 0.75 if the parcel is improved with a multiple-story residence.
12. Additional dwelling units are permitted in the NC, GC, HC, R/P and SC land use designations to allow single room occupancies in hotels and motels in the C-K, C-O, C-1 and C-2 zoning districts to implement the Housing Element and are not subject to residential building intensity but are subject to the floor area ratio (FAR) established herein.



I. IMPLEMENTATION OF THE LAND USE DESIGNATIONS

The land use designations used in this General Plan are intended to portray overall land use patterns throughout the unincorporated areas of the County rather than precisely define the specific land uses appropriate on each parcel of land. However, the zoning and land use regulations for a parcel shall conform to the land use designation as shown on the General Plan Land Use Diagrams for that parcel. When more than one land use designation is identified on a parcel, zoning and land use regulations shall conform to the designation on the respective portions of the property with the boundary between designations being determined based upon a parcel's specific characteristics.

Zoning Compatibility with Land Use Designations

The land use policies and standards of the General Plan are implemented on a day-to-day basis through zoning, which imposes specific development regulations. Table 1.3 identifies the various zoning districts established by the Tuolumne County Uniform Zoning Ordinance that can be used to consistently implement each land use designation of this General Plan. In addition to these primary zoning districts, the zoning ordinance provides a variety of zoning combining districts which can also be used for implementation of the General Plan. In addition to the compatible zoning districts listed in Table 1.3, less intensive residential and agricultural zoning districts are compatible with the residential land use designations. Table 1.3 is to be used for the purpose of determining consistency of proposed zone changes with the General Plan. The term "compatible" means that these zoning districts may be found consistent with the corresponding General Plan designation but some of the zoning districts listed, however, may not be appropriate based upon the characteristics of the specific site.

Land Use Designations of Roads, Road Easements and Other Easements

The land use diagrams utilize the County Assessor's parcels as the database; consequently, land use designations have been assigned based upon Assessor's Parcels. Where a road, road easement or other easement encompasses an entire Assessor's Parcel, a land use designation has been assigned to that parcel. A General Plan Amendment is required to change the land use designation of that parcel. Where a road, road easement or other easement crosses a portion of an Assessor's Parcel, the land use designation for the road or easement shall be the same as the underlying parcel. Where a road, road easement or other easement lies between two Assessor's Parcels, the land use designation shall be the same as the adjoining parcel from the centerline of the easement. If the easement is abandoned, there is no change in the underlying land use designation.

Non-conforming Land Uses and Parcels

Land uses and structures which legally existed on the date of adoption of this General Plan on _____, which are not consistent with their respective parcel's land use designation except for the minimum parcel size specified herein, are nonconforming and may continue indefinitely but cannot be expanded or enlarged. All land uses, except those related to the development of mineral resources, which were in existence at the time of adoption of previous General Plans on August 26, 1980 and December 26, 1996, are still declared to be nonconforming uses and may continue indefinitely but cannot be expanded or enlarged beyond the scope of the use as of August 26, 1980 and December 26, 1996. Vested rights related to the development of mineral resources shall be determined in accordance with the Surface Mining and Reclamation Act of 1975, as amended, and Chapter 8.20 of the Tuolumne County Ordinance Code. Any legal parcel of land of record on the effective date of this General Plan which does not meet the minimum parcel size specified herein for its land use designation may be used as a building site provided all other development standards can be met.



TABLE 1.3: GENERAL PLAN LAND USE DESIGNATIONS AND COMPATIBLE TITLE 17 ZONING CLASSIFICATIONS		
GENERAL PLAN DESIGNATION		COMPATIBLE ZONING
All Designations		O Open Space O-1 Open Space - 1 P Public All Combining Districts
HDR	High Density Residential	R-3 Multiple Family Residential
MDR	Medium Density Residential	R-2 Medium Density Residential
LDR	Low Density Residential	R-1 Single Family Residential RE-1 Residential Estate - 1 acre
ER	Estate Residential	RE-2 Residential Estate - 2 acres
HR	Homestead Residential	RE-3 Residential Estate - 3 acres
RR	Rural Residential	RE-5 Residential Estate - 5 acres A-10 General Agricultural - 10 acres
LR	Large Lot Residential	RE-10 Residential Estate - 10 acres A-20 General Agricultural - 20 acres
AG	Agricultural	AE-37 Exclusive Agricultural - 37 acres AE-80* Exclusive Agricultural - 80 acres AE-160* Exclusive Agricultural - 160 acres
TPZ	Timber Production	TPZ Timberland Production Zone
O	Open Space	O Open Space O-1 Open Space - 1
P	Public	P Public
R/P	Parks and Recreation	K General Recreational C-K Commercial Recreation
NC	Neighborhood Commercial	C-O Neighborhood Commercial
GC	General Commercial	C-O Neighborhood Commercial C-1 General Commercial
HC	Heavy Commercial	C-O Neighborhood Commercial C-1 General Commercial C-2 Heavy Commercial
SC	Special Commercial	C-S Special Commercial C-K Commercial Recreation
BP	Business Park	B-P Business Park
LI	Light Industrial	M-1 Light Industrial
HI	Heavy Industrial	M-1 Light Industrial M-2 Heavy Industrial
MU	Mixed Use	M-U Mixed Use
Overlay Designations		
-MPZ	Mineral Preserve (Overlay)	Determined by the primary land use designation.
-AIR	Airport (Overlay)	Determined by the primary land use designation.

* Denotes proposed zoning district.



J. COMMUNITY PLANNING AREAS

The aesthetic and scenic values of Tuolumne County contribute to the “quality of life” of its residents: a landscape that is a pleasure to live in, where the senses are heightened by its richness, aesthetic quality, and feeling of life;; and, a place in which all valuable resources, both natural and urban, blend in concert to elevate the human spirit. The rural environment of the Sierra foothills is characterized by a population generally dispersed throughout small town communities of mixed use development surrounded by large areas of open expanses consisting of agriculture, native vegetation, and low density development. These open areas contribute to the identity of the communities.

Roads and highways traverse areas of great scenic beauty within the County, offering enjoyable experiences for passing motorists, cyclists and hikers. The visual separation of the County's communities benefits from the conservation of open areas, especially along the road corridors connecting the communities. The relatively low density and scenic routes between communities and at entrances to the County give it much of its rural and natural character. Native vegetation and tree cover are important ingredients in this regard, as are the species of plants and their patterns in the natural and managed landscape. Tuolumne County is made up of eighteen defined communities; those marked with an asterisk (*) have adopted community plans.

TABLE 1.4: IDENTIFIED COMMUNITIES		
Community	Population	Acres
Big Oak Flat	150	357
Cedar Ridge	552	530
Chinese Camp	22	36
Columbia*	3,371	15,845
Crystal Falls/Mono Vista	3,212	1,461
East Sonora*	3,809	5,017
Groveland/Pine Mountain Lake	2,344	6,329
Jamestown*	3,122	3,121
Lake Don Pedro	793	7,058
Long Barn	57	105
Mountain Springs*	100	1,083
Sierra Village	194	124
Soulsbyville	1,063	873
Strawberry	69	459
Sugar Pine/Mi-Wuk	922	773
Tuolumne*	3,709	6,103
Twain Harte	2,866	3,527
West Sonora	1,293	337
Total	32,554	55,204

The Community Plan Volume of the Tuolumne County General Plan is designed to recognize each of the County's communities and establish a blueprint for creating more livable environments while preserving and enhancing the character and identity of each community. By doing so, future development will be guided to promote compact urban development, provide for efficient and cost-effective infrastructure, conserve resource lands, and safeguard environmentally sensitive lands.

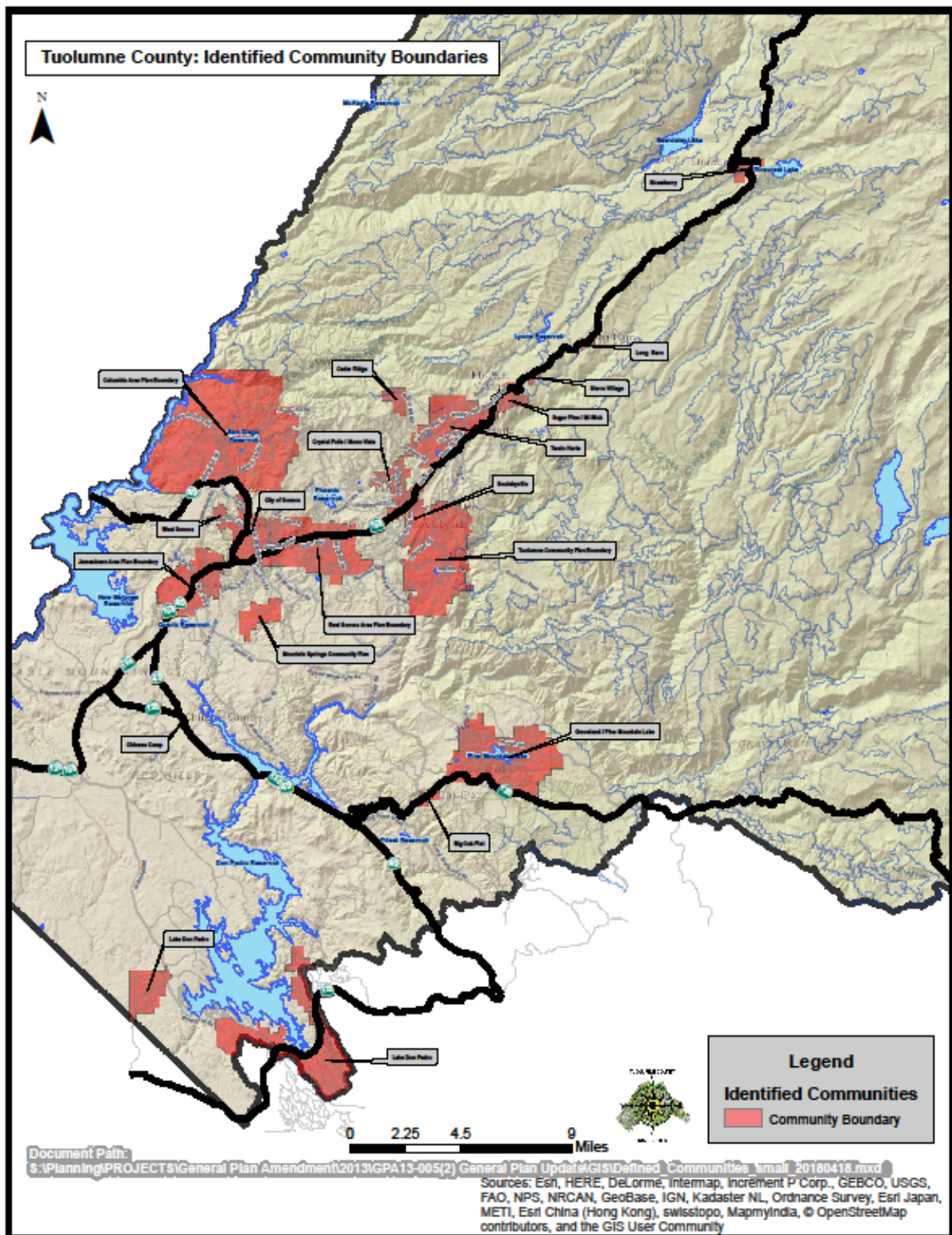


FIGURE 1.7: IDENTIFIED COMMUNITIES



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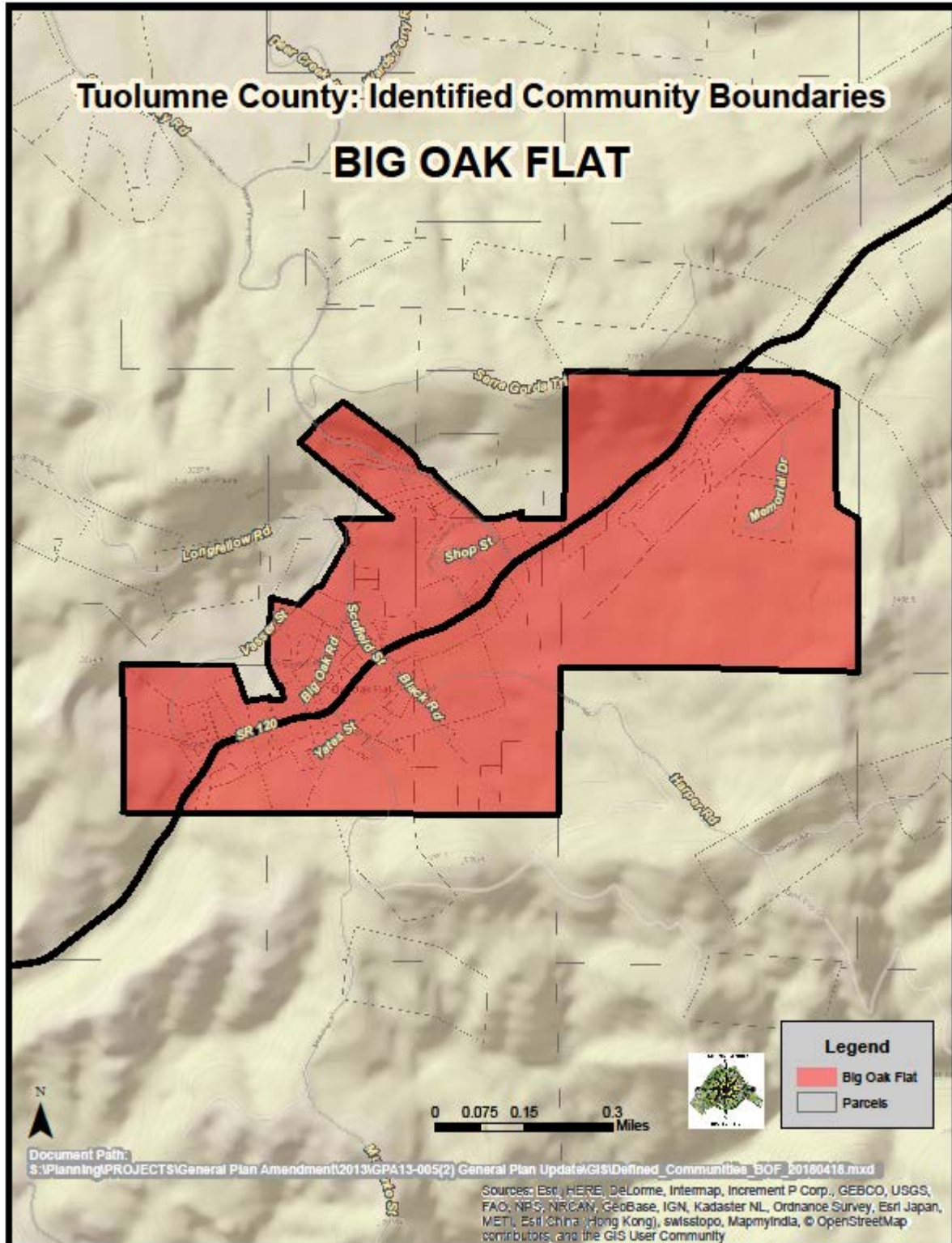


FIGURE 1.8: BIG OAK FLAT



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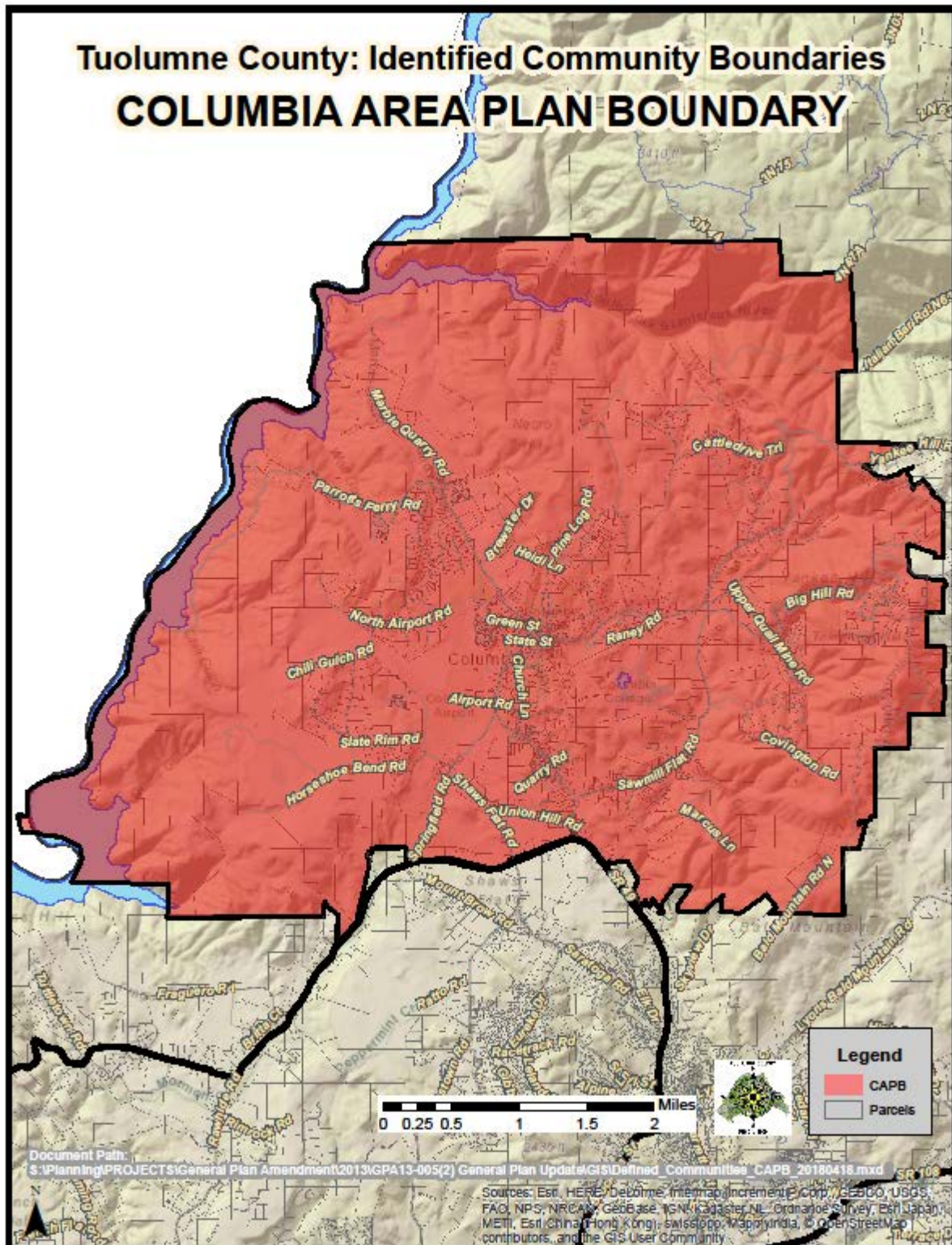


FIGURE 1.9: COLUMBIA



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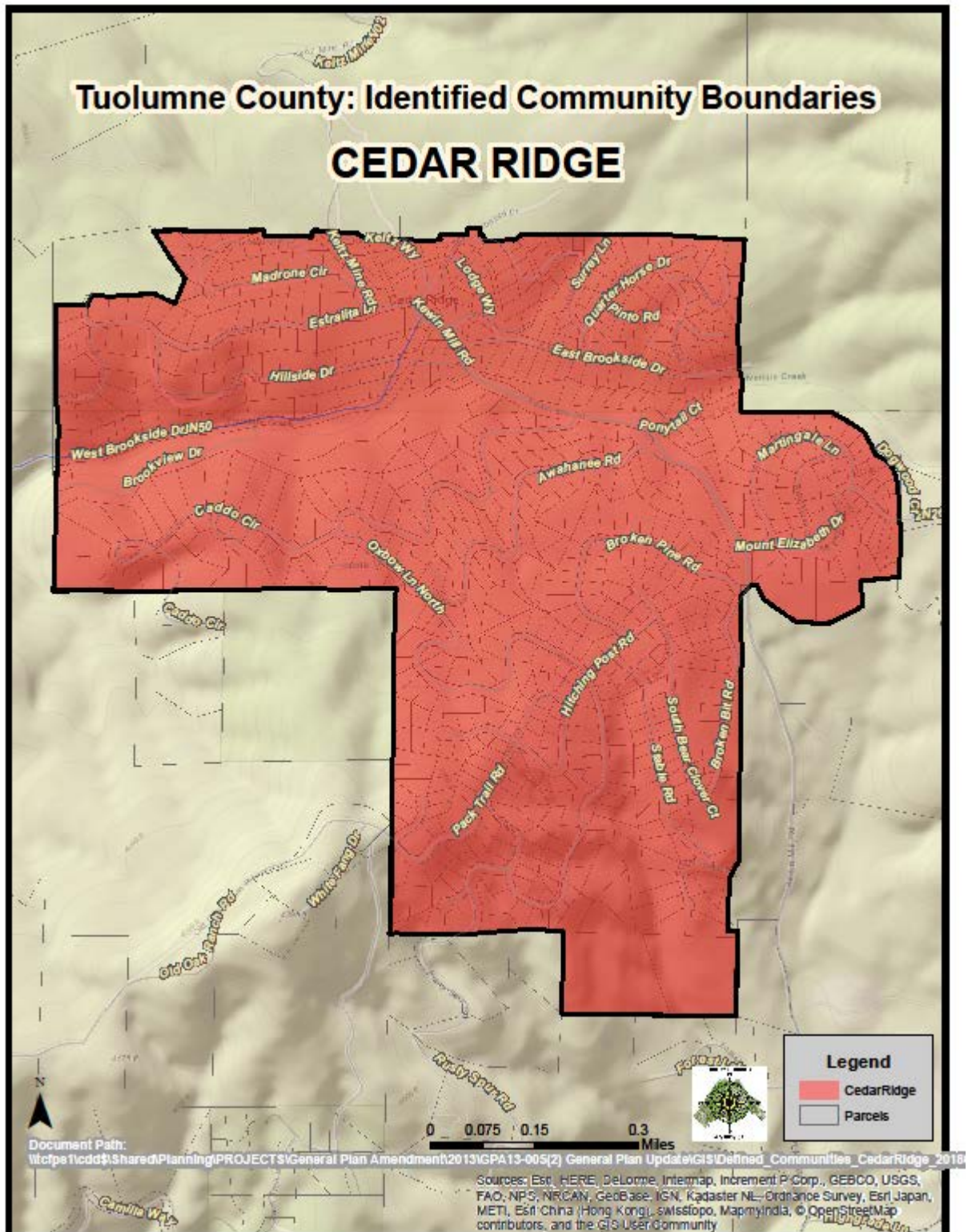


FIGURE 1.10: CEDAR RIDGE



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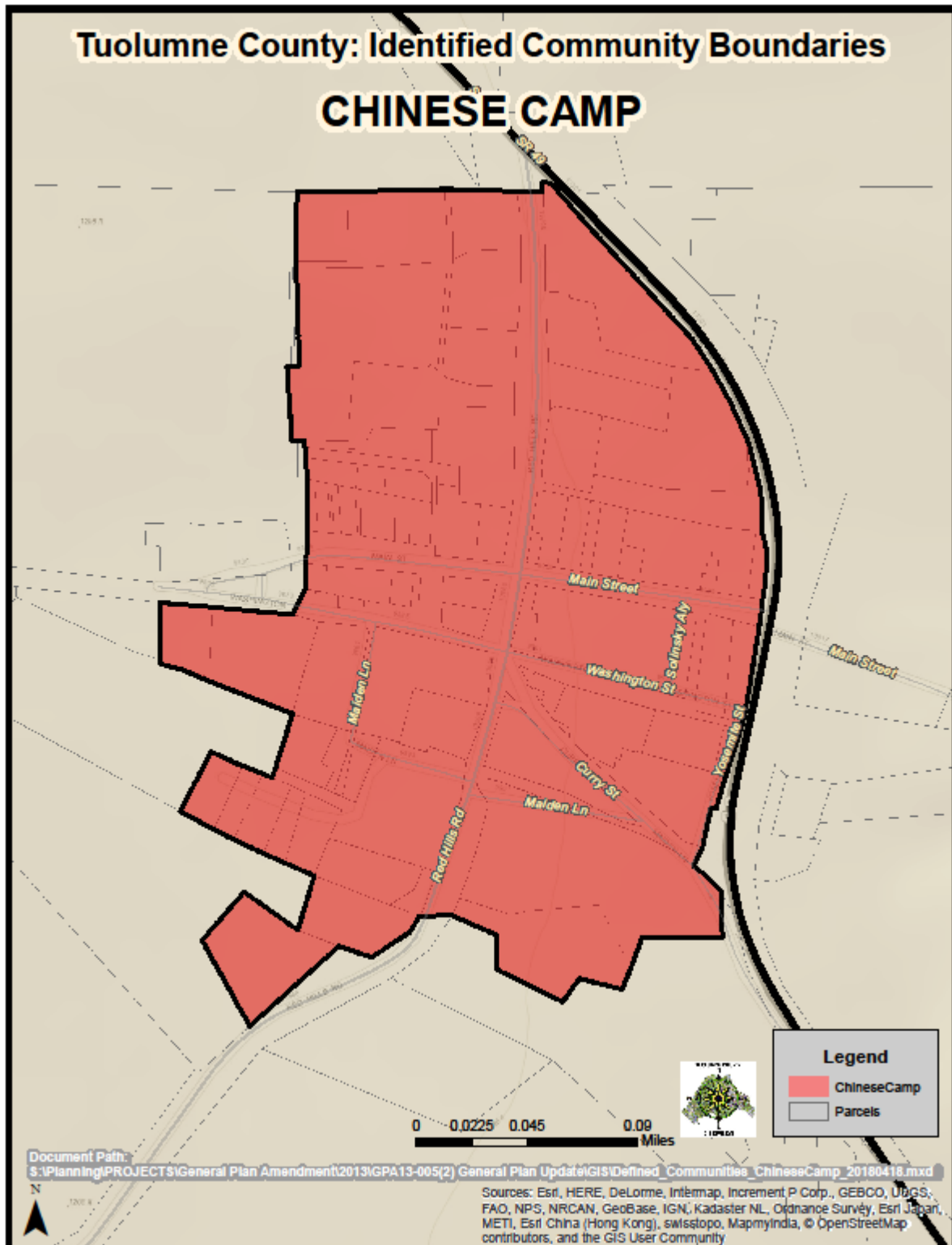


FIGURE 1.11: CHINESE CAMP



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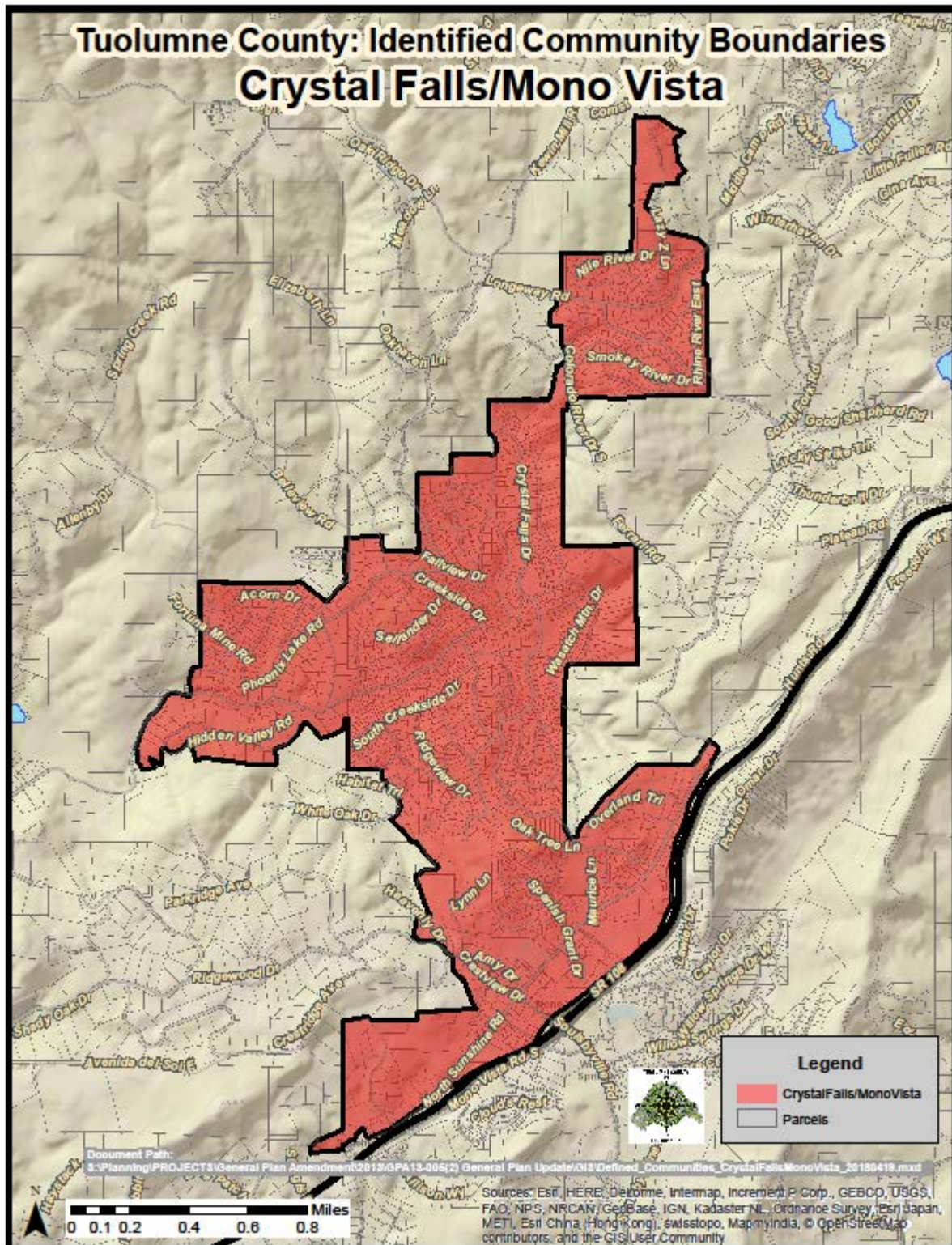


FIGURE 1.12: CRYSTAL FALLS/MONO VISTA



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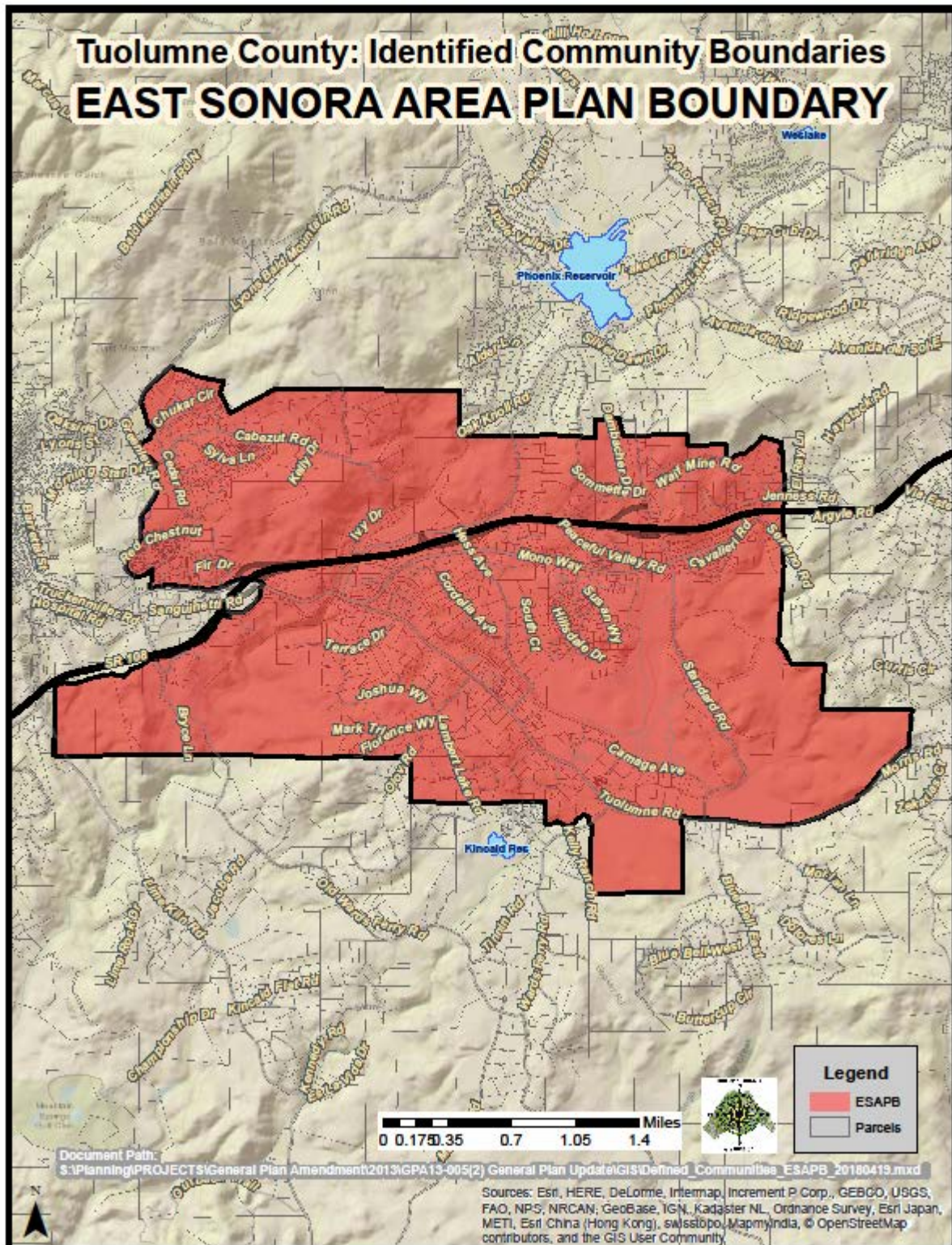


FIGURE 1.13: EAST SONORA



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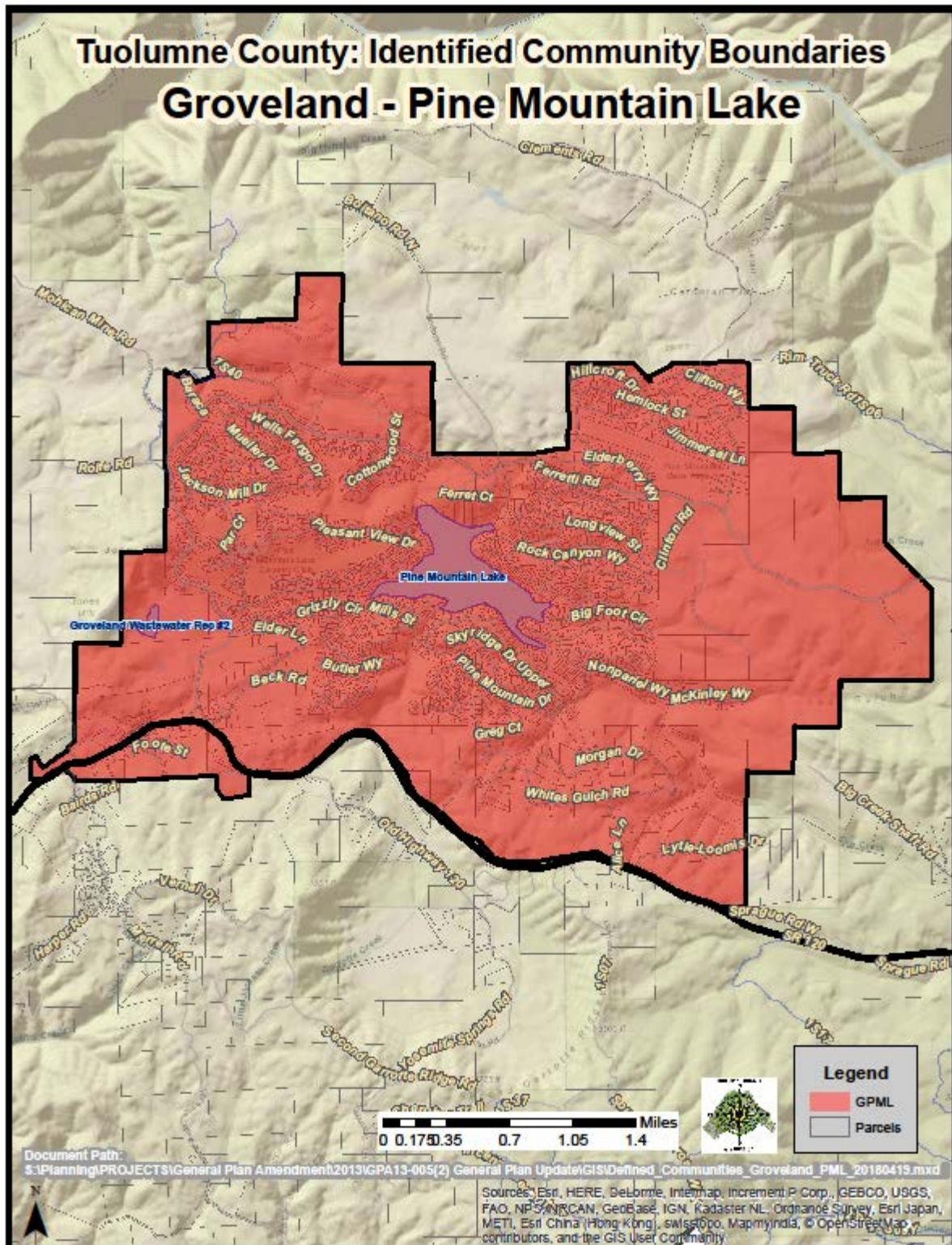


FIGURE 1.14: GROVELAND – PINE MOUNTAIN LAKE



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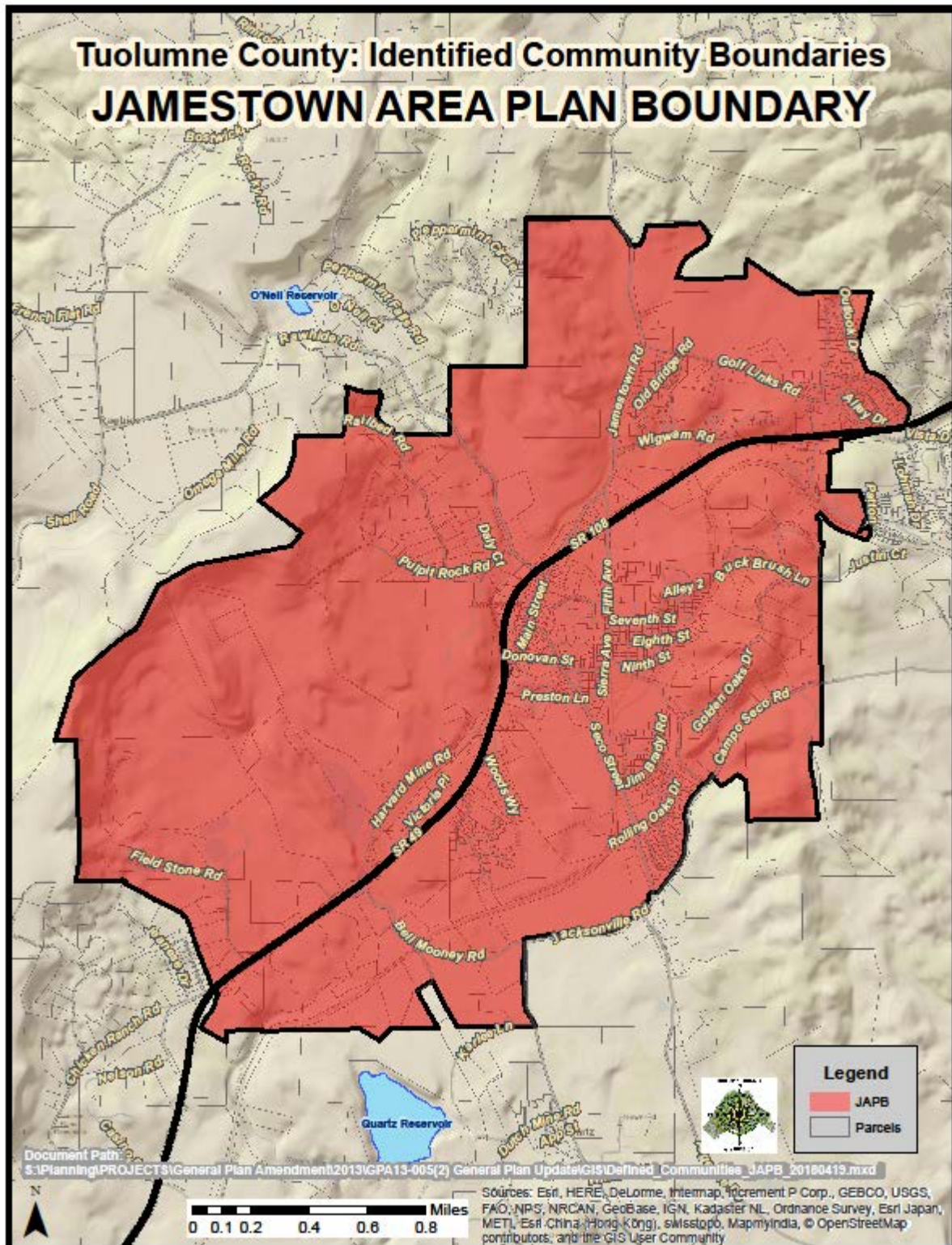


FIGURE 1.15: JAMESTOWN



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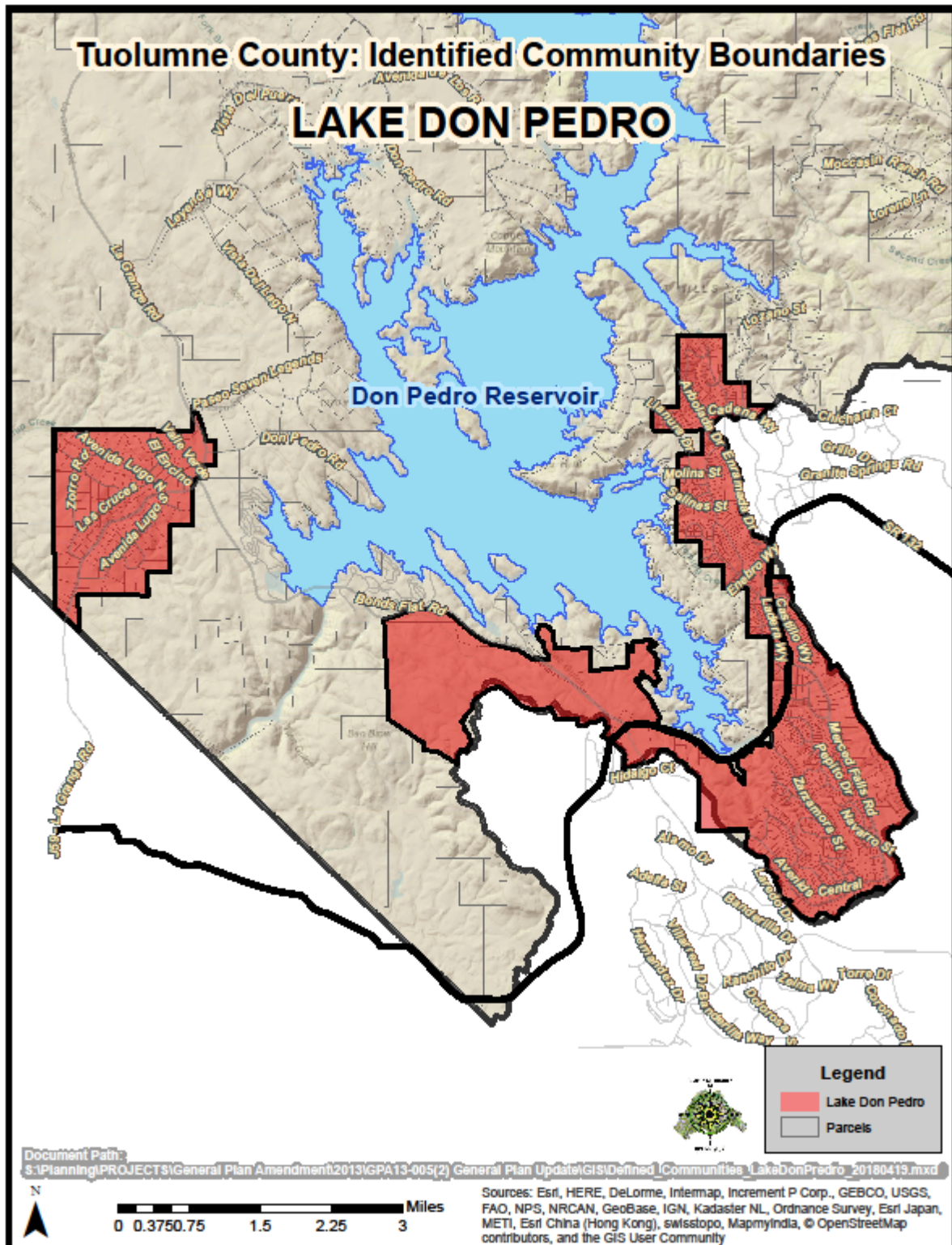


FIGURE 1.16: LAKE DON PEDRO



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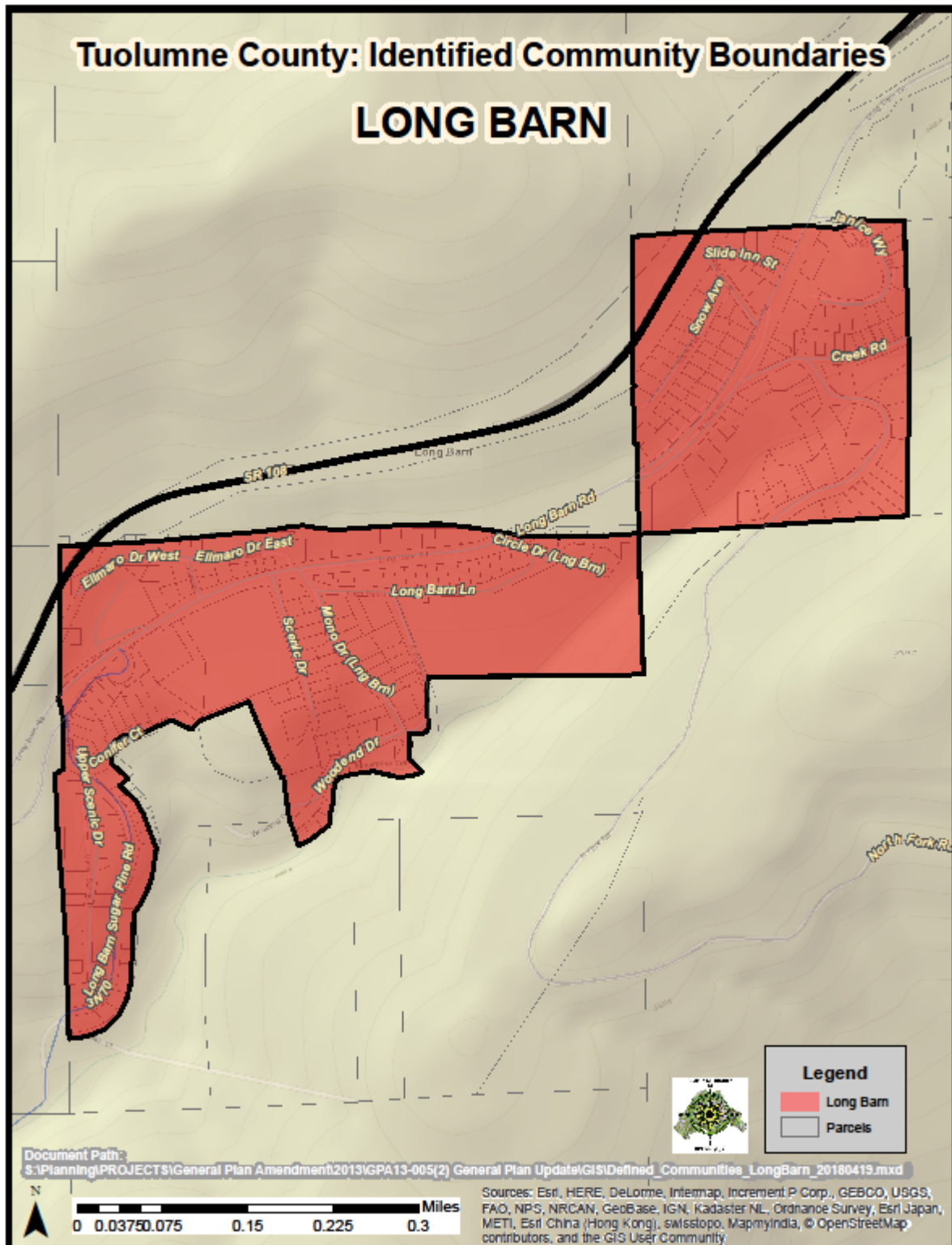


FIGURE 1.17: LONG BARN



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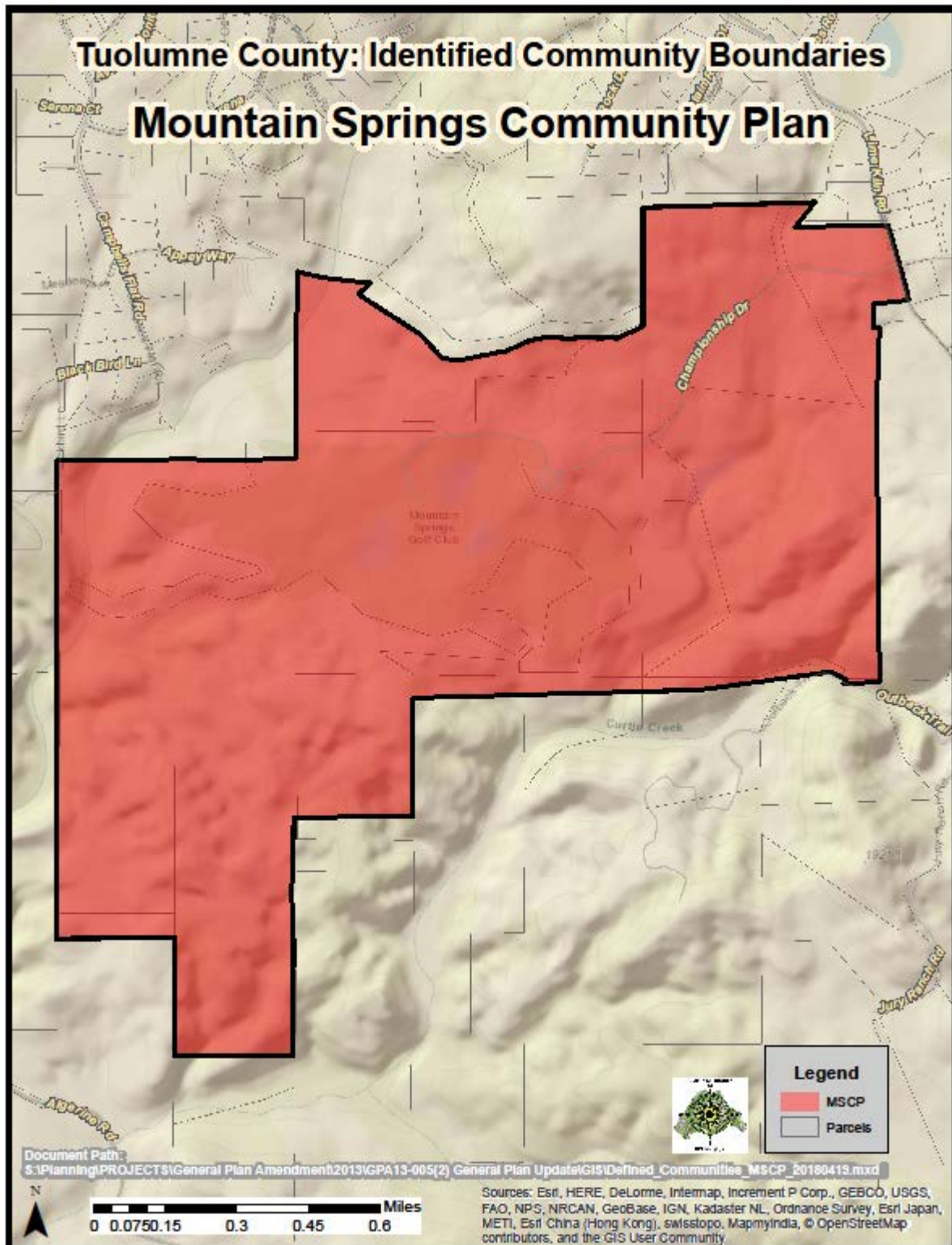


FIGURE 1.18: MOUNTAIN SPRINGS



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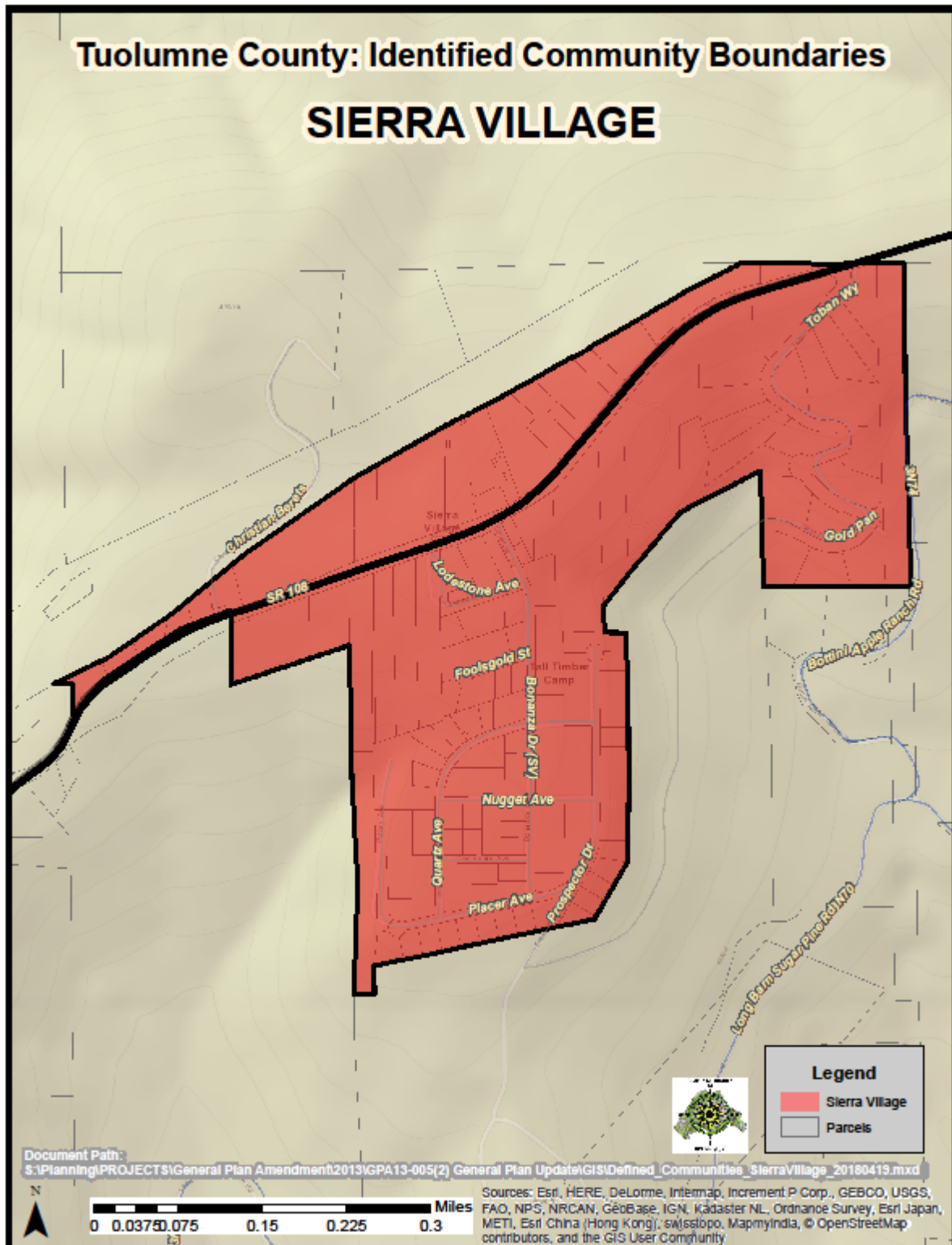


FIGURE 1.19: SIERRA VILLAGE



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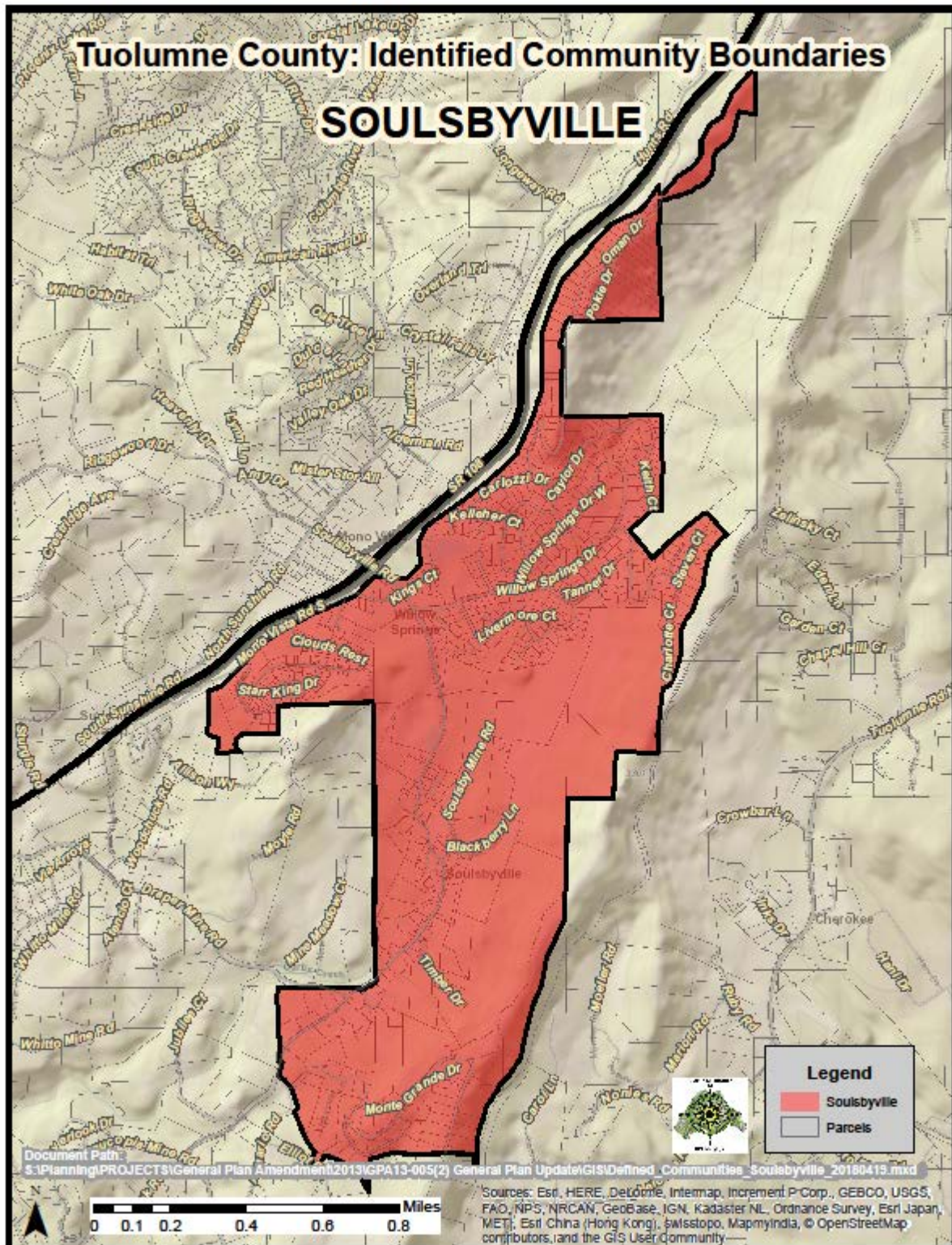
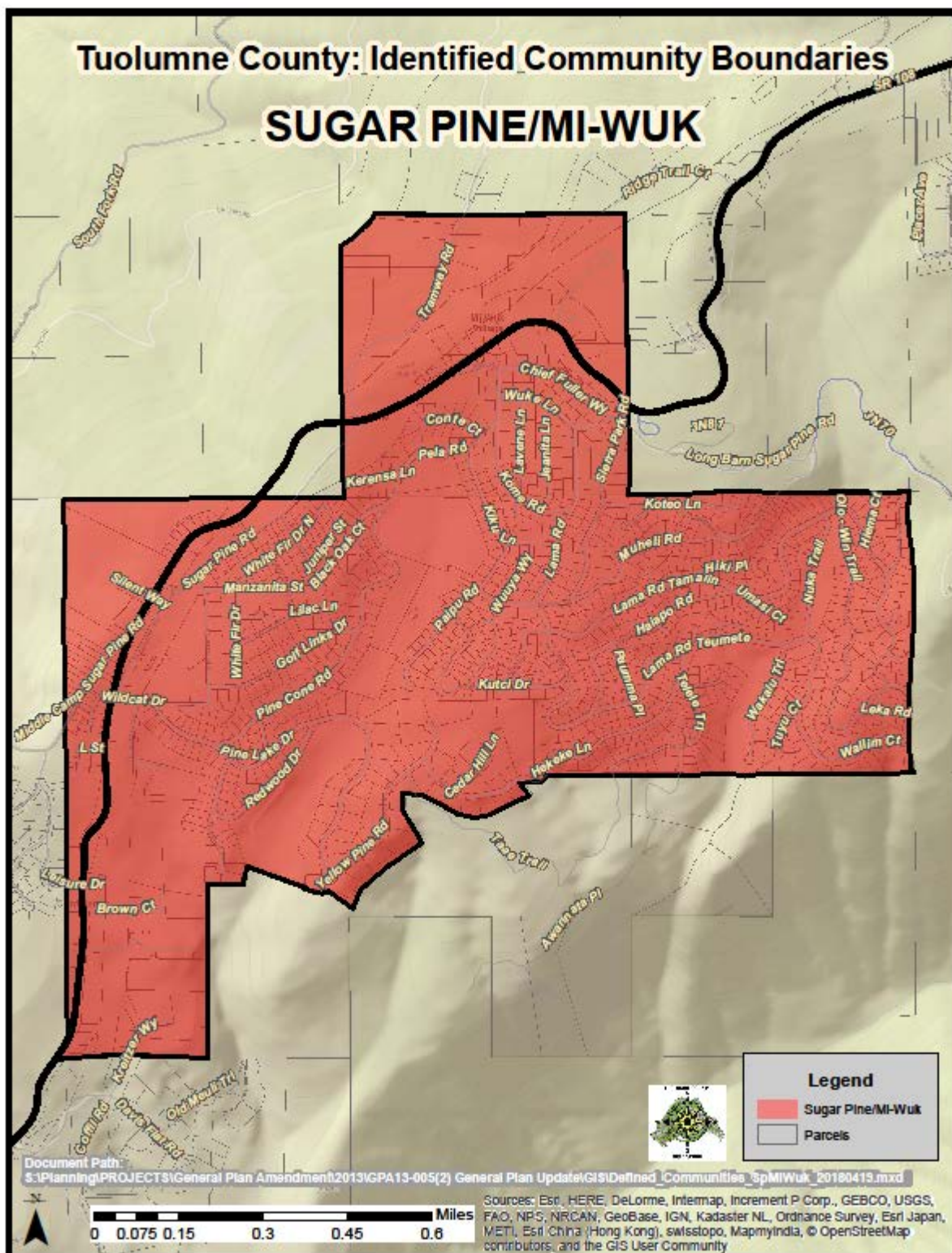


FIGURE 1.20: SOULSBYVILLE



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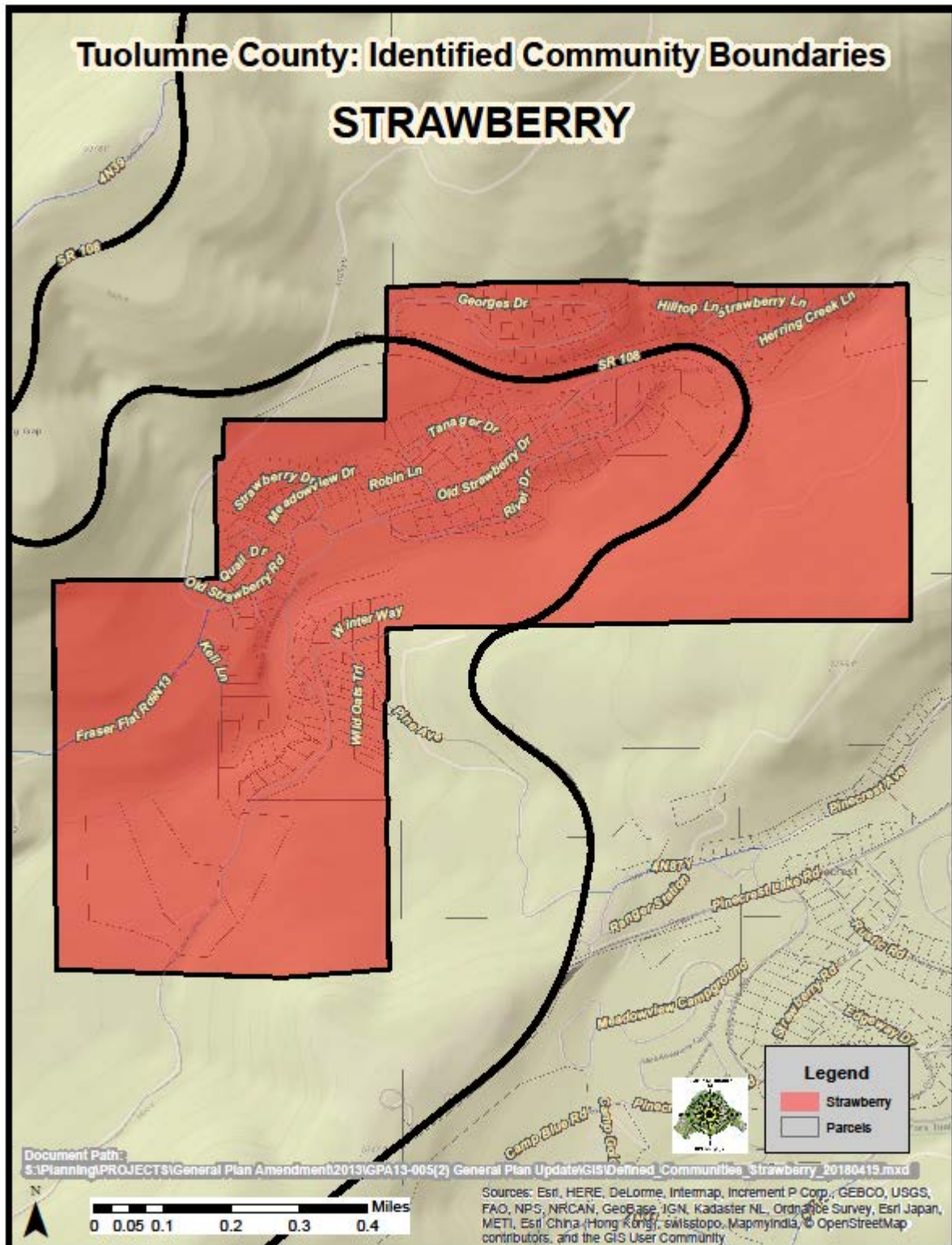


FIGURE 1.22: STRAWBERRY



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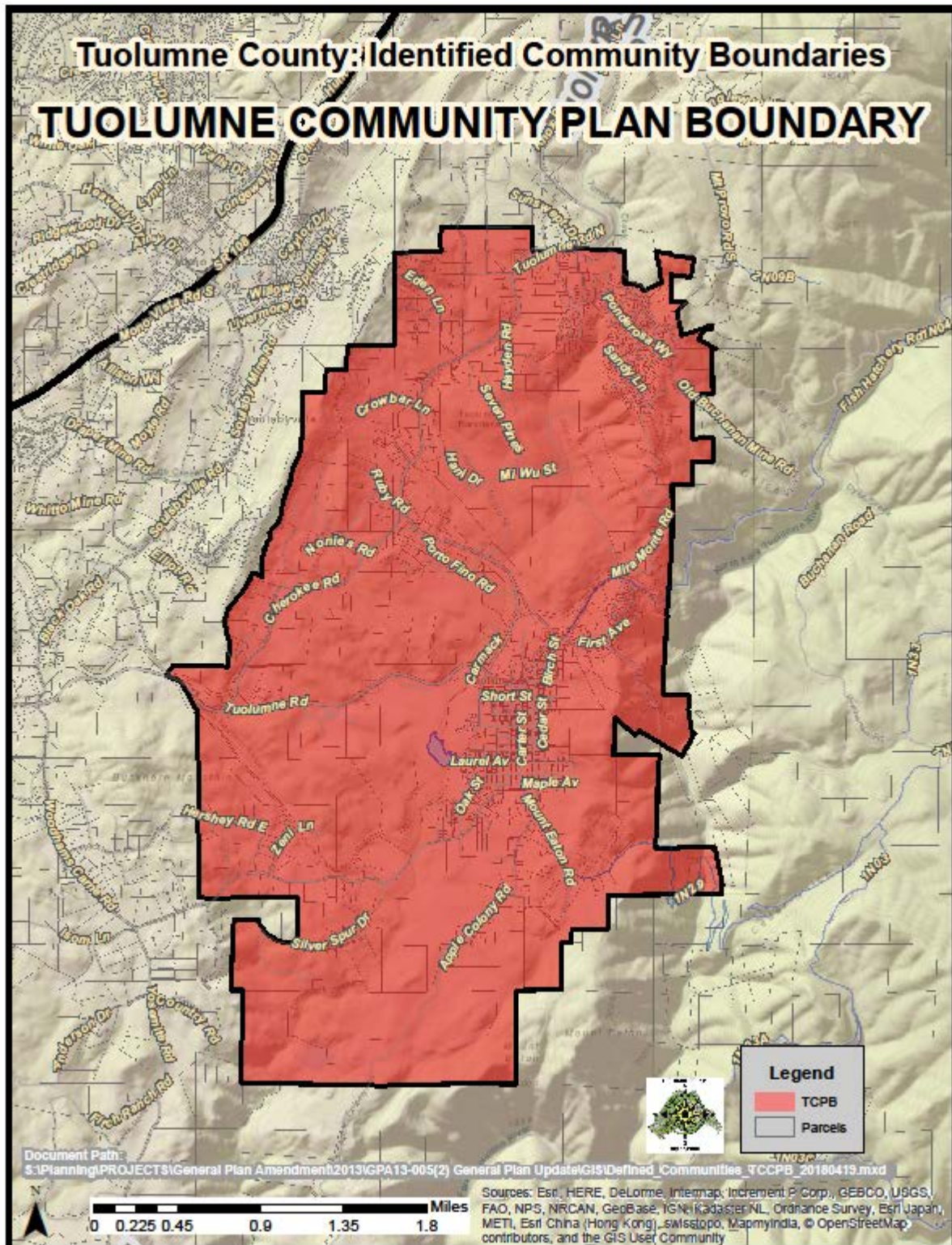


FIGURE 1.23: TUOLUMNE



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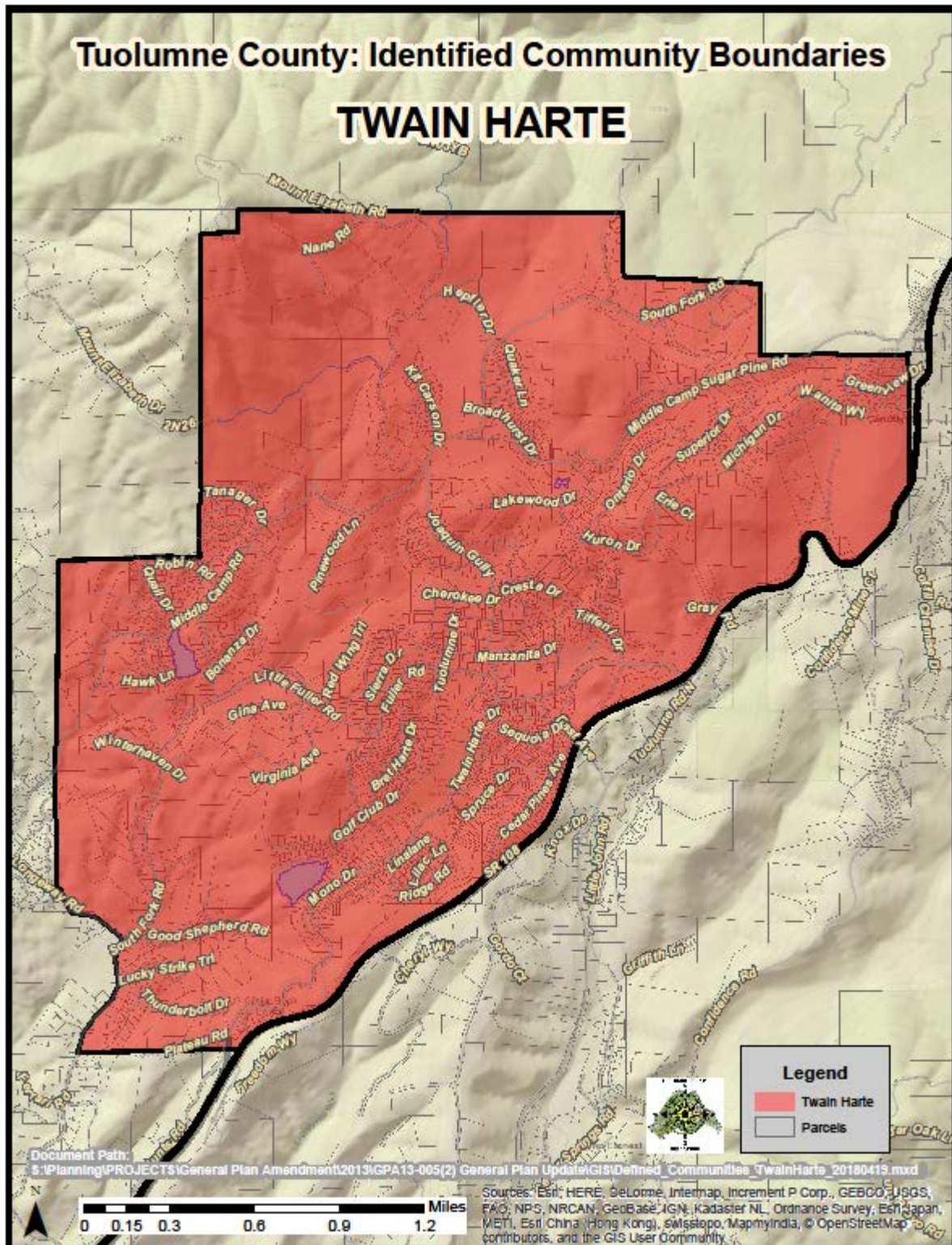


FIGURE 1.24: TWAIN HARTE



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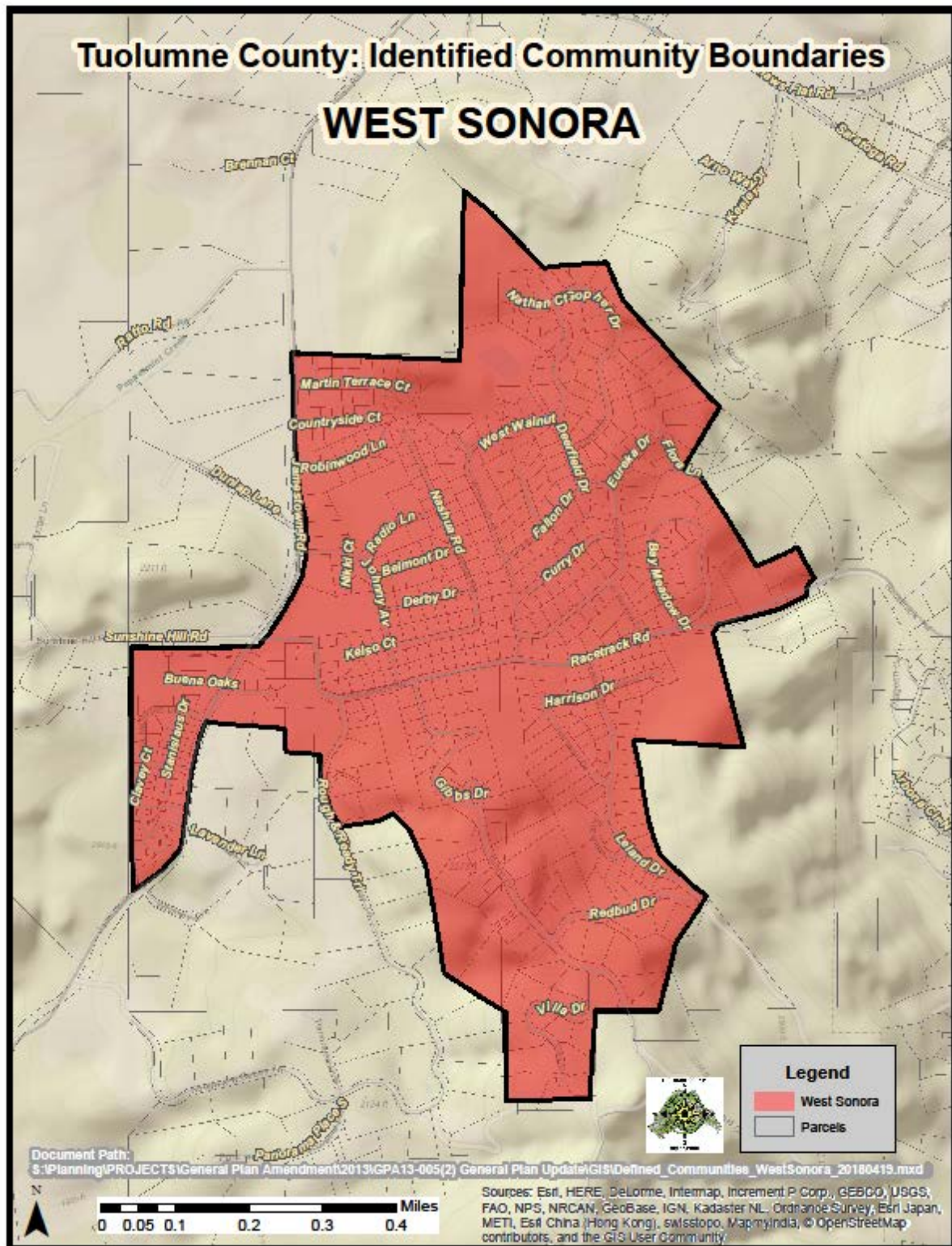


FIGURE 1.25: WEST SONORA



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K. LEGACY COMMUNITIES

All counties must identify and describe “legacy communities” within their boundaries that are disadvantaged unincorporated communities, but not including any area within the sphere of influence of a city. A legacy community means a geographically isolated community that is inhabited with no less than 10 dwellings adjacent or in close proximity to one another and that has existed for at least 50 years.

Additionally, all California municipalities are required to analyze the inequality and infrastructure deficits within disadvantaged unincorporated communities after passage of Senate Bill (SB) 244 in 2011. According to legislative findings in SB 244, hundreds of unincorporated communities in California lack access to basic community infrastructure like sidewalks, safe drinking water, and adequate waste processing.

A disadvantaged community is defined as a community with an annual median household income that is less than 80 percent of the statewide annual median household income. These communities range from remote settlements to neighborhoods that have been surrounded by, but have not been annexed by, a city. Including these communities in the long range planning of a city or county, as required by SB 244, will result in a more efficient delivery system of services and infrastructure including but not limited to sewer, water, and fire protection.

Tuolumne County parcel data, 2010 Census Block Groups income data and 2010 Census Designated Places and Census Blocks population data were used to identify disadvantaged unincorporated communities. Topographic maps were gathered to identify areas that had at least 10 dwellings adjacent or in close proximity to one another (parcels that are less than two acres in size) and that have existed for at least 50 years. These areas were mapped and were overlaid with median household income less than 80 percent of the median household income of the state with at least 10 inhabited dwellings (2010 Census data). Any Census Block Group with a median income of less than \$49,306 was included in the analysis. Using these protocols it was determined that there are 16 disadvantaged unincorporated legacy communities in Tuolumne County.

Description of Tuolumne County's 16 Legacy Communities

- **Apple Colony** – is a small residential community located to the south of the community of Tuolumne along Apple Colony Road within the southern half of Section 8, Township 1 North, Range 16 East, Mount Diablo Baseline and Meridian.
- **Big Oak Flat** – is a community in the southern part of the County located along Highway 120 within Section 30, Township 1 South, Range 16 East, Mount Diablo Baseline and Meridian. First called Savage Diggins after the man who discovered gold there in 1848, the town was renamed Big Oak Flat about 1850 to commemorate the giant oak tree that stood in the center of town. The oak, which was about 13 feet in diameter, was undermined in 1869 and burned in 1890, only pieces remained in 1949. Rich placer and lode mines are reported to have yielded \$28,000,000 during the town's heyday. Big Oak Flat is listed as No. 406 on the California Historical Landmark register.
- **Browns Flat** – is a very small mining community off Highway 49, located adjacent to the northern boundary of the City of Sonora and south of Columba. It is located in a portion of the northern half of Section 25, Township 2 North, Range 14 East, Mount Diablo Baseline and Meridian.
- **Chinese Camp** – is located along Highway 49 and 120 where Red Hills Road and Montezuma Road intersect. Reportedly founded in 1849 by a group of Englishmen who employed Chinese persons as miners, Chinese Camp was headquarters for stage-lines in the early 1850s and for several California Chinese mining companies. Much surface gold was found on hills and flats. The first Chinese tong war in the state was fought near Chinese Camp



between the Sam Yap and Yan Woo Tongs. The stone and brick post office, built in 1854, is still in use. Chinese Camp is listed as No. 423 on the California Historical Landmark register. The community of Chinese Camp consists of several roads that branch off from Red Hills Road and Highway 49 and 120. It is located where Sections 3, 4, 9 and 10, Township 1 South, Range 14 East, Mount Diablo Baseline and Meridian converge.

- **Columbia** – extends along Parrotts Ferry Road with commercial establishments located along Parrotts Ferry Road or within the Columbia State Historic Park. Columbia, the 'Gem of the Southern Mines,' became a town of 4,000 to 5,000 in the 1850s, following the discovery of gold there by the Hildreth party on March 27, 1850. Columbia State Historic Park was created in 1945 to preserve its historic buildings and sites. Columbia is listed as No. 123 on the California Historical Landmark register and is located within Sections 11 and 14, Township 2 North, Range 14 East, Mount Diablo Baseline and Meridian.
- **Groveland** – is located to the northeast of Big Oak Flat and is also located along Highway 120 with commercial uses at its core and residential uses radiating outwards. Formerly called 'First Garrote' because of the hanging of a Mexican person for stealing a horse, Groveland was built in 1849. Gold was discovered there in 1849, and thousands of dollars in placer gold were taken from mines on Garrote Creek, Big Creek, and other diggings. Groveland is listed as No. 446 on the California Historical Landmark register. Groveland is within the eastern half of Section 20 and Section 21, Township 1 South, Range 16 East, Mount Diablo Baseline and Meridian.
- **Jamestown** – is one of the largest defined communities within the County whose history began with the Gold Rush. James Woods first discovered gold in Tuolumne County west of the current community, on Woods Creek, shortly before the town was founded by Colonel George James on August 8, 1848. Large quantities of gold were recovered from the stream. The town became known as the gateway to the Mother Lode and the southern mines. Jamestown is listed as No. 431 on the California Historical Landmark register. Commercial development exists along Main Street and Highway 49 and 108 with residential uses radiating to the southeast. Jamestown is mostly within Section 10, Township 1 North, Range 14 East, Mount Diablo Baseline and Meridian.
- **Long Barn** – is located along Long Barn Road just south and parallel to Highway 108. Long Barn was a wagon stop along the Sonora Pass Highway during the 1800s Gold Rush era. Pioneers traveling west would stop at "The Long Barn" where they could refresh supplies and rest. Long Barn is located within the southern half of Section 20, Township 3 North, Range 17 East and the northern half of Section 29, Township 3 North, Range 17 East, Mount Diablo Baseline and Meridian.
- **Peter Pam** – is mostly a residential neighborhood with a few parcels zoned Neighborhood Commercial. The high Sierra community of Peter Pam is located within Section 2, Township 3, North, Range 17 East, Mount Diablo Baseline and Meridian.
- **Shaws Flat** – is located along Shaws Flat Road, Mount Brow Road and a portion of Jamestown Road. Mandeville Shaw planted an orchard on the eastern slope of Table Mountain in November 1849. When Tarleton Caldwell settled, he planted black walnut trees, known as Caldwell's Gardens. The Mississippi House, built in the 1850s, served as a store, bar and post office. Gold was discovered within a few months of Shaw's arrival. By early 1850, thousands of miners swarmed the area and named the mining camp Shaws Flat. Of the many mining camps that dotted the landscape near Columbia, Shaws Flat become one of the most important. Shaws Flat is listed as No. 395 on the California Historical Landmark register and is located within the southern half of Sections 22 and 23 and the northern half of Section 26, Township 2 North, Range 14 East, Mount Diablo Baseline and Meridian.
- **Soulsbyville** – is located along Soulsbyville Road south of Highway 108. Soulsbyville is the site of the famous Soulsby Mine, established by Benjamin Soulsby, Soulsbyville is the first community in Tuolumne County to be founded, in 1855, entirely upon the operation of a lode mine. First to work the mine were hard rock miners from Cornwall, England. Soulsbyville is listed as No. 420 on the California Historical Landmark register and is



located within the western half and southeastern portion of Section 31, Township 2 North, Range 16 East, Mount Diablo Baseline and Meridian.

- **Stent** – is a residential community located along Stent Cutoff Road about a mile south of the community of Jamestown. Stent consists of a few roads and is located where Sections 22, 23, 26 and 27, Township 1 North, Range 14 East, Mount Diablo Baseline and Meridian, converge.
- **Sunshine Camp** – is located to the south of Highway 108 and west of Soulsbyville. The community of Sunshine Camp consists of property designated for industrial, commercial and residential uses. To the south of Sunshine Camp are the Draper Mine and Black Oak Mine. It is located within portions of Sections 35 and 36, Township 2 North, Range 15, East, Mount Diablo Baseline and Meridian.
- **Tuolumne** – The Central Sierra Me-Wuk are believed to have first entered the Tuolumne area 500-800 years ago (Moratto, 1984). Tuolumne was later settled by Franklin and Elizabeth Summers who arrived in 1854 to what was then known as Eagle Ranch along Turnback Creek. After Franklin Summers' death in a gunfight, miners championed the name Summersville for the community. William H. Crocker, his cousin Henry Crocker, Charles F. Gardner, William Newell and Thomas S. Bullock are credited with the formation of the West Side Flume and Lumber Company that developed the company-town of Carter south of the Summersville townsite in 1899. By the time the Tuolumne post office was christened in 1909, the community name of Tuolumne was firmly established. Tuolumne is bounded by Yosemite Road and Maple Avenue to the south, Cherry Valley Boulevard to the west, primarily Cedar Road to the east and Tuolumne Road North to the north. Tuolumne is located within the southern half of Section 5 and Section 8, Township 1 North, Range 16 East, Mount Diablo Baseline and Meridian.
- **Twain Harte** – is located north of Highway 108 within portions of Sections 8, 9, 16 and 17, Township 2 North, Range 16 East, Mount Diablo Baseline and Meridian. During the Gold Rush, Twain Harte was the site of flume-and-ditch building to supply water needed to wash the dirt and gravel to yield gold. At the turn of the twentieth century, the Sugar Pine Railway was built through Twain Harte. This railway carried logs from the high country to the sawmill in Standard. In the 1920s and 30s, the Twain Harte area was developed as a resort and what is believed to be the first private housing subdivision in the Sierra. It was named Twain Harte Lodge in the 1920s after the famous authors Mark Twain and Bret Harte, who had lived in the general area. The first version of the well-known Twain Harte "Arch" was built in 1933. The golf course was built in the 1930s. Over the years, Twain Harte has developed into a community with several thousand permanent residents.



Analysis of Legacy Community's Public Service Status

For each legacy community, an analysis of water, wastewater, stormwater drainage, and structural fire protection needs or deficiencies must be provided in the general plan. Funding mechanisms that could make the extension of services and facilities to identified communities financially feasible must also be analyzed.

TABLE 1.5: PUBLIC SERVICE STATUS FOR LEGACY COMMUNITIES				
COMMUNITY	Public Water Available	Public Sewer Available	Stormwater Drainage	Fire Protection
1. Apple Colony	Yes	Yes	No	Yes
2. Big Oak Flat	Yes	Yes	No	Yes
3. Browns Flat	Yes	Yes	No	Yes
4. Chinese Camp	No	No	No	Yes
5. Columbia	Yes	Yes	Yes	Yes
6. Groveland	Yes	Yes	No	Yes
7. Jamestown	Yes	Yes	Yes	Yes
8. Long Barn	Yes	No	No	Yes
9. Peter Pam	Yes	No	No	Yes
10. Shaws Flat	Nearby	Nearby	No	Yes
11. Soulsbyville	Yes	Nearby	No	Yes
12. Strawberry	Yes	No	No	Yes
13. Stent	No	No	No	Yes
14. Sunshine Camp	Yes	Yes	No	Yes
15. Tuolumne	Yes	Yes	Yes	Yes
16. Twain Harte	Yes	Yes	Yes	Yes

Public Water Availability - Public water is available for a majority of the Disadvantaged Legacy Communities as identified in Table 1.5. The three communities that do not currently have public water are Chinese Camp, Shaws Flat and Stent. These communities are served by private wells and no significant well issues have occurred in these communities. *Shaws Flat* currently is not served by public water, however, public water extends along Saratoga Road to Highway 49 near the east boundary of Shaws Flat. Therefore, public water could be extended to Shaws Flat. *Chinese Camp* and *Stent* do not have any public water within their vicinities and would require major extensions to these communities or separate individual community systems to serve these areas.

Public Sewer Availability - Public sewer is available for half of the Disadvantaged Legacy Communities as identified in Table 1.5. The seven communities that are not served by public sewer are Chinese Camp, Long Barn, Peter Pam, Shaws Flat, Soulsbyville, Strawberry and Stent; however, these communities are served by septic systems and no significant septic problems have occurred in these communities. Shaws Flat currently is not served by public sewer, however, public sewer extends up to Saratoga Road near the east boundary of Shaws Flat. Therefore, public sewer could be extended to Shaws Flat. The community of Soulsbyville is served by public water but is currently not served by public sewer. Public Sewer service is available to the north of Soulsbyville in the Willow Springs Subdivision. The communities of Chinese Camp, Long Barn, Peter Pam, Strawberry and Stent do not have any public sewer service in proximity to them. To provide public sewer to these communities would require major extensions or separate individual community systems to serve these areas.



Stormwater Drainage - The Municipal Storm Water Permitting Program regulates storm water discharges from municipal separate storm sewer systems (MS4s). Storm water is runoff from rain or snow melt that runs off surfaces such as rooftops, paved streets, highways or parking lots, and can carry with it pollutants, such as oil, pesticides, herbicides, sediment, trash, bacteria and metals. The runoff can then drain directly into a local stream, lake or bay. Often, the runoff drains into storm drains which eventually drain untreated into a local waterbody. Additionally, municipal or urban areas commonly include large impervious surfaces which contribute to an increase in runoff flow, velocity and volume. As a result, streams are hydrologically impacted through streambed and channel scouring, instream sedimentation and loss of aquatic and riparian habitat. In addition to hydrological impacts, large impervious surfaces contribute to greater pollutant loading, resulting in turbid water, nutrient enrichment, bacterial contamination, and increased temperature and trash. MS4 permits were issued in two phases.

Under Phase I, which started in 1990, the Regional Water Quality Control Boards have adopted National Pollutant Discharge Elimination System General Permit (NPDES) storm water permits for medium (serving between 100,000 and 250,000 people) and large (serving more than 250,000 people) municipalities. Most of these permits are issued to a group of co-permittees encompassing an entire metropolitan area. These permits are reissued as the permits expire. The Phase I MS4 permits require the discharger to develop and implement a Storm Water Management Plan/Program with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). MEP is the performance standard specified in Section 402(p) of the Clean Water Act. The management programs specify what best management practices (BMPs) will be used to address certain program areas. The program areas include: public education and outreach; illicit discharge detection and elimination; construction and post-construction; and good housekeeping for municipal operations. In general, medium and large municipalities are required to conduct monitoring.

On April 30, 2003 as part of Phase II, the State Water Resources Control Board issued a General Permit for the Discharge of Storm Water from Small MS4s (WQ Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities (population less than 100,000), including non-traditional Small MS4s, which are facilities such as military bases, public campuses, prison and hospital complexes. The Phase II Small MS4 General Permit covers Phase II Permittees statewide. On February 5, 2013 the Phase II Small MS4 General Permit was adopted and became effective on July 1, 2013. Tuolumne County is not classified as a Phase I or Phase II MS4. Therefore, the Municipal Storm Water Permitting Program does not apply to the County and a stormwater drainage management program is currently not required. However, Columbia, Jamestown, Tuolumne and Twain Harte do have municipal stormwater drainage facilities within their communities and the existing natural drainage systems suffice for the other communities in the County.

Fire Protection - As indicated in Table 1.5, structural fire protection is provided to all of the disadvantaged unincorporated legacy communities in Tuolumne County by either the Tuolumne County Fire Department or Fire Protection Districts. Structural fire protection is provided to the unincorporated area of the County through a cooperative fire protection services approach. Currently, CAL FIRE provides administrative and operational services through a fire protection agreement to the County of Tuolumne, Jamestown Fire Protection District and the Groveland Community Services District. The remaining fire districts and special districts, including Tuolumne Fire District, Columbia Fire Protection District, Twain Harte Community Services District, Mi-Wuk/Sugar Pine Fire Protection District and the Strawberry Fire Protection District, all play a vital role in the fire protection services of the County. However, fire protection needs within the County are continuing to grow and change as the population base within the County changes. In order to provide adequate levels of fire suppression services modifications to the current agencies that provide such services may be needed to accommodate the growing and changing needs within the County.



Analysis of Potential Funding Mechanisms - Government Code Section 65302.10(b)(3) requires an analysis of benefit assessment districts or other financing alternatives that could make the extension of services to identified communities that currently do not have public water or sewer financially feasible.

Principal funding sources for infrastructure include taxes, benefit assessments, bonds and impact fees. In addition, there are funding opportunities for both infrastructure planning and implementation available. The following are additional sources of funding for public water and sewer to be extended to communities that currently do not have the infrastructure.

- *California Department of Public Health Safe Drinking Water State Revolving Fund* – The California Department of Public Health provides funding through the Safe Drinking Water State Revolving Fund. The State Revolving Fund provides low interest loans to fund public water system planning and infrastructure projects. Grant funding may be available to disadvantaged communities that are unable to afford loans. Emphasis is focused on projects that solve public health and significant compliance issues.
- *State Water Resources Control Board Revolving Fund Program* – The Federal Water Pollution Control Act established the Clean Water State Revolving Fund program. The Clean Water State Revolving Fund program offers low interest financing agreements for water quality projects. Annually, the program disburses between \$200 and \$300 million to eligible projects.
- *State Water Resources Control Board Small Community Wastewater Grant Program* – The Small Community Wastewater Grant Program provides grants for the planning, design, and construction of publicly-owned wastewater treatment and collection facilities to small communities (i.e., with a population of 20,000 persons, or less) with financial hardship (i.e., annual median household income is 80 percent of the Statewide median household income, or less).
- *Department of Water Resources Integrated Regional Water Management (IRWM) Grant Program* - Integrated Regional Water Management (IRWM) is a collaborative effort to manage all aspects of water resources in a region. IRWM crosses jurisdictional, watershed, and political boundaries; involves multiple agencies, stakeholders, individuals, and groups; and attempts to address the issues and differing perspectives of all the entities involved through mutually beneficial solutions.
- *United States Department of Agricultural Rural Development Grants and Loans* – Grants and loans are available through the USDA for predevelopment planning, water and wastewater, and emergency water assistance.



FIGURE 1.26: LEGACY COMMUNITIES



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FIGURE 1.27



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FIGURE 1.28



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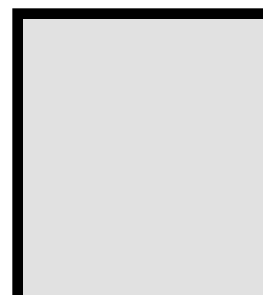


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FIGURE 1.30



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FIGURE 1.31



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Chapter 2

HOUSING

A place where all citizens enjoy opportunities to thrive in a safe, healthy, and productive community.
- The Tuolumne County Vision

A. INTRODUCTION

Housing, including the cost, availability, and condition, are at the forefront of discussion in Tuolumne County. During the recession, residential development slowed to a trickle. While development activity has increased in recent years, it remains far below pre-recession levels. The lack of inventory has had a negative effect on housing affordability. According to the National Low Income Housing Coalition Out of Reach 2018 Report, minimum wage earners in Tuolumne County have to work 68 hours per week to be able to afford a typical two-bedroom rental in the County. A household would need to earn \$18.40 per hour or \$38,280 per year in order to afford rent and utilities.

The Tuolumne County Association of Realtors reports that the median sales price at the end of the first quarter of 2018 was \$267,500. By comparison, the median sales price at the end of 2011 (lowest level following the recession) was \$160,000. Low housing inventory is not only a result of low housing production. During the recession, many foreclosures were purchased and turned into rental homes. The Rim Fire and the tree mortality crisis have brought an influx of temporary workers into Tuolumne County and those employees are renting units in the community that would normally be available to local residents.

Tuolumne County, along with the rest of California, is experiencing an increase in homelessness which many believe is at least in part fueled by the lack of affordable housing. The County is working to increase the amount of rental and homeownership housing at all levels of affordability so that residents have a place to live and the County can continue to attract new businesses to the area.

The Housing Element of the Tuolumne County General Plan is required to be updated and certified by the California Department of Housing and Community Development every five years. The Housing Element was last updated in 2014 and is required to be certified by HCD no later than July 1, 2019. The 2-14-2019 Housing Element is located in Appendix A of this Technical Background Report. The goals, policies, and implementation programs from that Element are located in the General Plan Policy Document (Volume 1).



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Chapter 3

UTILITIES

A place where all citizens enjoy opportunities to thrive in a safe, healthy, and productive community.
- The Tuolumne County Vision

A. WATER

Water System Services

Development in Tuolumne County receives water primarily from public utilities such as Tuolumne Utilities District (TUD) and Groveland Community Services District, and also from local groundwater. The California Department of Water Resources' Bulletin 118, which provides a detailed description of groundwater basins in California, does not identify any groundwater basins in the County. The surface water supply varies from year to year based on the amount of rain and snowfall in the Sierra Nevada Mountains. Inadequate rainfall and snowpack reduces the runoff to the reservoirs supplying most of the water in the County. The reserved pools of water in those systems are not of adequate size to withstand a sustained drought of multiple years without either adding to the supply or rationing the water.

Tuolumne Utilities District - The public water system providing service to most residents in Tuolumne County is operated by TUD. Actually, an assemblage of numerous large and smaller systems under TUD ownership and operation, TUD provides water either directly or indirectly to most of the developed portions of Tuolumne County. TUD serves about 44,000 residents, which represents about 81 percent of the County's total population, including the City of Sonora. TUD maintains a Treated Water System, also referred to as a "water distribution system" which includes TUD's 14 surface water treatment plants, 25 water wells, and the treated water customer service meters. The TUD water distribution systems do not follow census tract boundaries, political boundaries, watersheds, or community boundaries. Rather the boundaries of the water distribution systems are irregular and represent those specific geographic areas which are served by one or more TUD municipal water supply treated water sources. TUD operates and maintains 17 separate distribution systems which together form the Treated Water System. Approximately 96 percent of TUD's water supply consists of surface water that originates as rainfall and runoff from snowpack in the Sierra Nevada Mountains. Snowmelt runs through the South Fork Stanislaus River, filling PG&E's Pinecrest and Lyons reservoirs; while TUD has no independent water rights, it obtains water from these reservoirs (TUD 2015). The remaining 4 percent of water supply is met with groundwater from 30 wells either as a primary source or a backup source. However, the groundwater supply is limited because of the hard, impermeable bedrock that covers most of Tuolumne County.

Groveland Community Service District - For the southern portion of Tuolumne County, GCSD provides potable water to approximately 3,500 customers in the communities of Groveland, Big Oak Flat, and Pine Mountain Lake. The water is withdrawn from the Hetch Hetchy Mountain Tunnel, under a long-term contract with SFPUC. GCSD's



water supply and distribution system includes three water treatment plants, five storage reservoirs, and approximately 70 miles of distribution piping.

Other Water Suppliers

Two other water suppliers in Tuolumne County are the Twain Harte Community Services District (CSD) and the Lake Don Pedro CSD. The Twain Harte CSD, a water supplier for the community of Twain Harte, receives water from TUD. The Lake Don Pedro Community Services District (CSD) provides water service to the residents of Units 2 and 3 of the Lake Don Pedro Subdivision. Currently, their water supply is drawn from Lake McClure under an agreement with the Merced Irrigation District.

Groundwater

Groundwater is the only water supply source for many of the small water systems in Tuolumne County, particularly for rural residential development in outlying areas. The majority of small water systems that are regulated by the State Regional Water Quality Control Board rely exclusively on individual small capacity wells. Because of weather fluctuations and the nature of fractured rock, wells can prove unreliable during drought periods and difficult to establish in some parts of the County. The Tuolumne-Stanislaus Integrated Regional Water Management Plan of August 2013 determined that existing data are insufficient to quantify the total available sustainable groundwater supply.

B. SEWER

Wastewater Collection and Treatment Services

Five wastewater collection and treatment systems operate in Tuolumne County: TUD, GCSD, Twain Harte Community Services District (CSD), Jamestown Sanitary District, and the Tuolumne Sanitary District. Individual, on-site septic systems are also very common in Tuolumne County, as only a portion of the residents with community water service connections also have wastewater connections.

Tuolumne Utilities District - The largest wastewater system in Tuolumne County is TUD's Regional Wastewater Treatment Plant (WWTP) in the City of Sonora, which receives flow from both the TUD and Twain Harte Community Services District wastewater collection systems. The Regional WWTP has a design capacity of 2.6 million gallons per day (mgd). During the recent drought, the plant treated an average of 1.3 mgd of sewage; within the last decade, peak inflow has been 1.7 mgd. The Regional WWTP provides primary and secondary treatment of wastewater, using biological decomposers to rid effluent of living organisms. The secondary treated wastewater is comingled with secondary treated wastewater from Jamestown Sanitary District and reused for agricultural applications. Occasionally, treated wastewater is discharged to Woods Creek during wet weather conditions when there is insufficient remaining capacity in the wastewater storage reservoir, Quartz Reservoir.

Groveland Community Services District - GCSD operates a wastewater treatment plant that serves approximately 1,500 customers with a capacity of 500,000 gpd. The plant consists of primary and secondary treatment and disposes of its effluent by storing it in two storage ponds then sending it either to the Pine Mountain Lake Golf Course or to 14 acres of spray fields.

Jamestown Sanitary District - This district operates a wastewater treatment plant that serves approximately 1,250 customers with a capacity of 280,000 gpd. The plant provides primary and secondary treatment of wastewater.



Twain Harte Community Service District - The Twain Harte CSD serves approximately 1,500 customers and sends wastewater to TUD's Regional WWTP for secondary treatment.

Tuolumne Sanitary District - This district operates spray evaporation ponds with a capacity of 360,000 gpd to dispose of wastewater from approximately 850 customers (TUD 2013). Inflow of wastewater is an average of 160,000 gpd (MacLean 2013).

C. SOLID WASTE

Solid Waste Collection and Transfer Services

Tuolumne County no longer has any operating landfills. There are several transfer stations and recycling centers located throughout the County. There are multiple waste services companies in Tuolumne County.

Cal Sierra Disposal, Inc. - Cal Sierra Disposal, Inc., owned by Waste Management, is a franchise operator with a long-term contract that expires in 2022. Cal Sierra serves unincorporated Tuolumne County along the State Route 108 corridor from the western County line to Pinecrest, including but not limited to the communities of East Sonora, Jamestown, Columbia, and Twain Harte, and the City of Sonora. The Tuolumne and Groveland areas are served by other haulers. The amount of solid waste generated in Cal Sierra Disposal's service area varies seasonally, from about 110 tons per day in the winter to between 170 and 180 tons per day in the summer. An average of 10 to 12 tons per day of this solid waste is diverted for recycling. Collected solid waste is processed at a transfer station and disposed of at the Highway 59 Disposal Site landfill, which is operated by the Merced County Regional Waste Management Authority.

The Moore Bros Scavenger Co. - The Moore Bros Scavenger Co., Inc. provides solid waste service for southern Tuolumne County, including Groveland, Big Oak Flats, Moccasin, and areas upcountry along the Highway 120 corridor. This provider is allowed to collect a maximum amount of 25 tons/day of solid waste. In 2014, approximately 12.9 percent of solid waste was diverted for recycling. All solid waste collected by Moore Bros Scavenger Co. is brought to transfer stations in Groveland or East Sonora, where Cal Sierra Disposal transports it to the Highway 59 landfill in Merced.

Burns Refuse Service Inc. - Burns Refuse Service, Inc. provides solid waste service for the community of Tuolumne, Standard, Curtis Creek, Soulsbyville Road up to Soulsbyville Elementary School, Wards Ferry Road, and Old Wards Ferry Road. This provider serves about 1,100 residential customers and from 100 to 155 commercial customers. In 2014, Burns Refuse Service collected 3,248 tons of solid waste and diverted 291.3 tons for recycling. Because trash is collected five days per week, the amount of solid waste generated is approximately 12.5 tons per day. Solid waste is brought to a transfer station operated by Waste Management in East Sonora and disposed of at the Highway 59 landfill.



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Chapter 4

TRANSPORTATION

A place where all citizens enjoy opportunities to thrive in a safe, healthy, and productive community.
- The Tuolumne County Vision

A. CORRELATION WITH LAND USE ELEMENT

The transportation system should accommodate the level of traffic generated by current and future development, both in terms of distribution and intensity. Thus, this element presents a circulation plan that is based upon land use policy set forth in the Land Use Element.

B. STREETS AND HIGHWAYS

The basic street and highway network in Tuolumne County is comprised of a combination of approximately 139 centerline miles of State highways, 610 centerline miles of maintained County roads and 26 centerline miles of maintained City streets. Beyond this basic system, there also exist over 2,000 additional miles of Federal (Bureau of Land Management, Forest Service and National Park) and privately maintained roads.

When these roads are grouped by category, they form the functional system of roadways for Tuolumne County. The functional classification is defined by Title 23 Code of Federal Regulations, Subchapter E-Planning and Research Part 470 Highway Systems, Subpart A. The urban or rural area designations vary through the years based on the census data for each year. Below is a brief summary of each functional category, as defined by the Federal Highway Administration, *Highway Functional Classification Concepts, Criteria and Procedures, 2013 Addition* as described in the American Association of State Highway Transportation Officials (AASHTO), as well as presentations of typical minimum right-of-way criteria for each class of roadway in the County and a list of those State Highways and County roads classified within each category.

Major Thoroughfares

Other Principal Arterial (Functional Class Code 3) - These roadways serve major centers of metropolitan areas, provide a high degree of mobility and can also provide mobility through rural areas. For the most part, roadways that fall into the top three functional classification categories (Interstate, Other Freeways & Expressways and Other Principal Arterials) provide similar service in both urban and rural areas. The primary difference is that there are usually multiple Arterial routes serving a particular urban area, radiating out from the urban center to serve the surrounding region. In contrast, an expanse of a rural area of equal size would be served by a single Arterial. The principal arterial system consists of a network of regional routes functioning primarily for the movement of through traffic, usually on continuous routes, with trip length and capacities suitable for substantial statewide or interstate



travel. The California Department of Transportation (Caltrans) and within Yosemite National Park, the Park Service, are the responsible agencies for improving and maintaining these routes.

- * State Highway 120
- * State Highway 49
- * State Highway 108 (Stanislaus County Line to Mono Way / State Highway 108 Intersection)

Minor Arterial (Functional Class Code 4) - The minor arterial functions in conjunction with the principal major arterials to form a regional network providing high speed, high volume travel corridors for movement between traffic generators such as cities, large towns and resort areas and uninterrupted inter-county travel. Minor arterials provide service for trips of moderate length, serve geographic areas that are smaller than their higher Arterial counterparts and offer connectivity to the higher arterial system. In an urban context, they interconnect and augment the higher arterial system, to provide intra-community continuity. Urban arterials are designed to accommodate all modes of transportation and lower travel speeds. In rural settings, minor arterials should be identified and spaced at intervals consistent with population density, so that all developed areas are within a reasonable distance of a higher level arterial. Additionally, Minor arterials in rural areas are typically designed to provide relatively high overall travel speeds, with minimum interference to through movement. Caltrans in addition to the County are the responsible agencies for improving and maintaining these routes.

- * Mono Way
- * La Grange Road (J 59)
- * State Highway 108 (Mono Way / State Highway Intersection to Alpine County Line)
- * State Highway 132

Transportation Routes (Collectors and Local Roads)

Collectors serve a critical role in the roadway network by gathering traffic from Local Roads and funneling them to the Arterial network, and are primarily important for intra-county travel. Within the context of functional classification, Collectors are broken down into two categories, major collectors and minor collectors. Until recently, this division was considered only in the rural environment. Currently, all Collectors, regardless of whether they are within a rural area or an urban area, may be sub-stratified into *major* and *minor* categories.

Major Collector (Functional Class Code 5) - These routes function as corridors for through traffic within local areas providing service to towns and other major traffic generators within the County. They also serve to link minor collectors and local access roads with nearby towns and communities or the arterial system.

- Algerine Road (Stent Cutoff to Jacksonville Road)
- Bonds Flat Road
- Ferretti Road
- Greenley Road
- Fifth Avenue North (State Highway 49 to Jamestown Road)
- Fir Drive (Mono Way to Sanguinetti Road)
- Hess Avenue (Mono Way to Phoenix Lake Road)
- Jacksonville Road (State Highway 120 to Stent Cutoff)
- Jamestown Road
- Lime Kiln Road (Campo Seco Road to State Highway 108)
- Longeway Road (Soulsbyville Road to South Fork Road)
- Merced Falls Road



- Mono Vista Road South
- O'Byrnes Ferry Road
- Parrotts Ferry Road
- Peaceful Oak Road (State Highway 108 to Mono Way)
- Phoenix Lake Road
- Rawhide Road
- Sanguinetti Road
- Shaws Flat Road (Jamestown Road to Hwy. 49)
- Smith Station Road
- Soulsbyville Road
- Standard Road
- Stent Cutoff
- Tuolumne Road
- Tuolumne Road North
- Twain Harte Drive
- South Fork Road (Longeway Road to Middle Camp Road)

Minor Collector (Functional Class Code 6) - These routes generally serve lower density areas and, therefore, do not have the traffic volume that major collectors do. Minor collector roads often serve to funnel traffic from groups of local roads onto the major collectors and arterial routes. Minor collectors should be spaced to bring all developing areas of the County within reasonable distance of major collectors or arterial routes.

- Algerine Road (Stent Cutoff to Lime Kiln Road)
- Algerine/Wards Ferry Road
- Bay Avenue (Cherry Valley Blvd to Main Street, Tuolumne)
- Bear River Drive (Crestview Drive to Crystal Falls Drive)
- Bell Mooney Road
- Big Hill Road
- Black Oak Road (Tuolumne Road to Soulsbyville Road)
- Buchanan Road (Carter Street to Stanislaus National Forest Boundary)
- Cabezut Road (Greenley Road to Cabezut Court)
- Campo Seco Road
- Carter Street
- Cherokee Road (Tuolumne Road to Tuolumne Road North)
- Cherry Valley Blvd (Tuolumne Road to Bay Avenue)
- Creekside Drive (Phoenix Lake Road to Crestview Drive)
- Crestview Drive (Bear River Drive to Creekside Drive)
- Crestview Drive (Ridgewood Drive to North Sunshine Road)
- Crystal Falls Drive (Longeway Road to Bear River Drive)
- Dodge Ridge Road
- Draper Mine Road
- East Avenue
- Fifth Avenue (Jamestown - State Highway 49 to Sierra Avenue)
- Fuller Road (Little Fuller Road to Joaquin Gully Road)
- Hess Avenue (Mono Way to Tuolumne Road)
- Hunts Road (Longeway Road to Twain Harte Drive)
- Jackson Street (Bigler Street to Parrotts Ferry Road)



- Jacksonville Road (Bell Mooney to Algerine Road)
- Jacobs Road
- Joaquin Gully Road
- Kewin Mill Road
- Lambert Lake Road (Tuolumne Road to Florence Road)
- Lime Kiln Road (Campo Seco Road to Algerine Road)
- Little Fuller Road (South Fork Road to Fuller Road)
- Longeway Road (South Fork Road to Kewin Mill Road)
- Lyons Bald Mountain Road
- Main Street, Jamestown
- Main Street, Tuolumne (Bay Avenue to Maple Avenue)
- Middle Camp/Sugar Pine Road
- North Sunshine Road (South Sunshine Road to Longeway Road)
- Old Priest Grade
- Old Wards Ferry Road (State Highway 108 overpass to Jacobs Road)
- Pinecrest Lake Road (State Highway 108 to Pinecrest Lake)
- Priest Coulterville Road
- Racetrack Road (Jamestown Road to East Bay Meadow Drive)
- Red Hill Road
- Ridgewood Drive
- Sawmill Flat Road
- Seco Street
- Shaws Flat Road (Springfield Road to State Highway 49)
- Shaws Flat Road (Jamestown Road to East Keeley Drive)
- Sierra Avenue
- Sims Road (State Highway 49 to State Highway 120)
- Springfield Road (Parrotts Ferry Road to Shaws Flat Road)
- Twist Road (Jacksonville Road to Algerine Road)
- Wards Ferry Road (Algerine/Wards Ferry Road to Tuolumne Road)
- Woodhams Carne Road (Yosemite Road to Tuolumne Road)
- Yankee Hill Road (Sawmill Flat Road to Bigler Street)
- Yosemite Road

Local Road (Functional Class Code 7) - The local road system primarily provides direct access to residential property and other areas which are not directly served by the collector or arterial system; They are not intended for use in long distance travel. Local roads make up a major portion of the County Road System, accounting for approximately 404 miles. Local roads are all those County roads not classified under the Arterial or Collector categories.

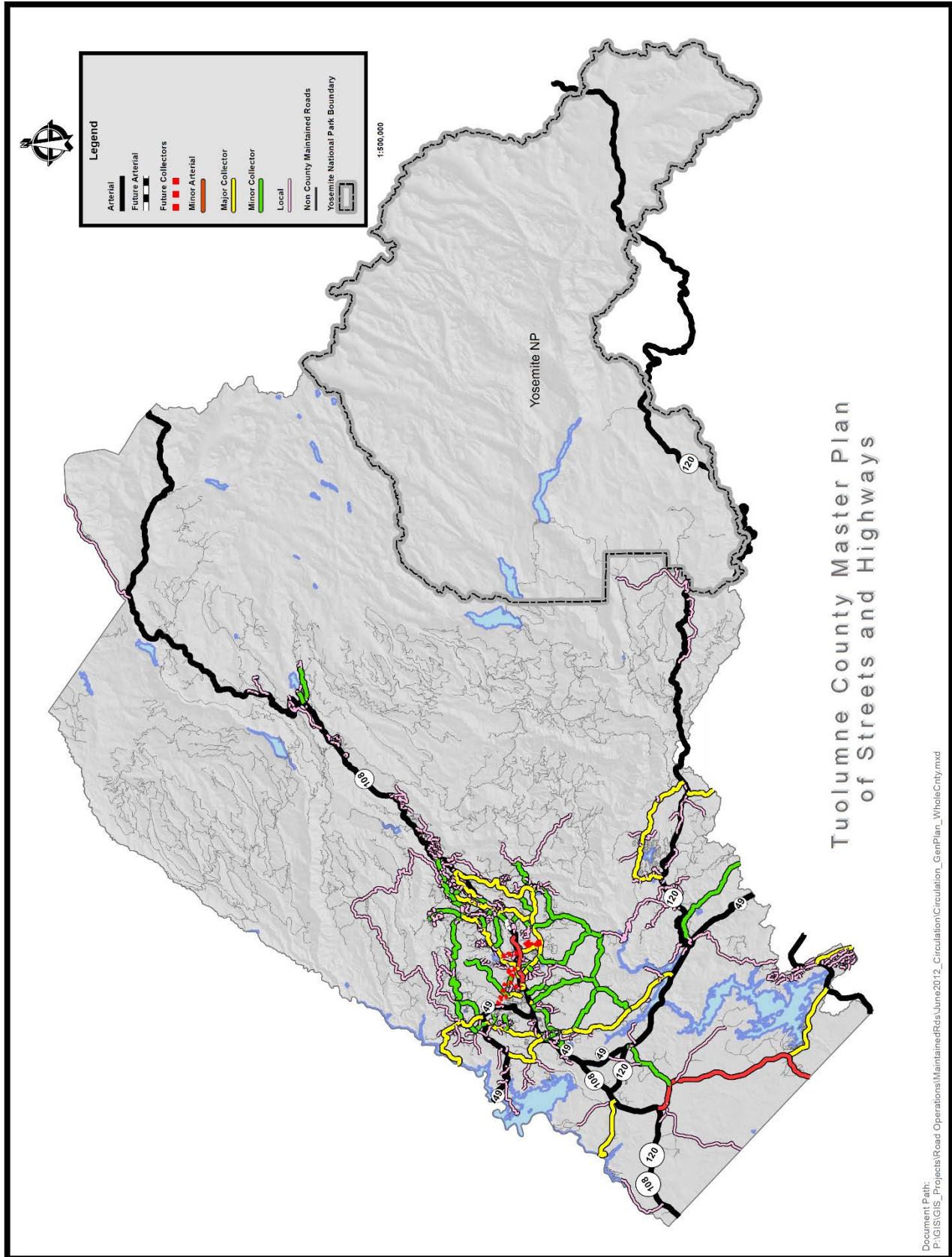


FIGURE 4:1



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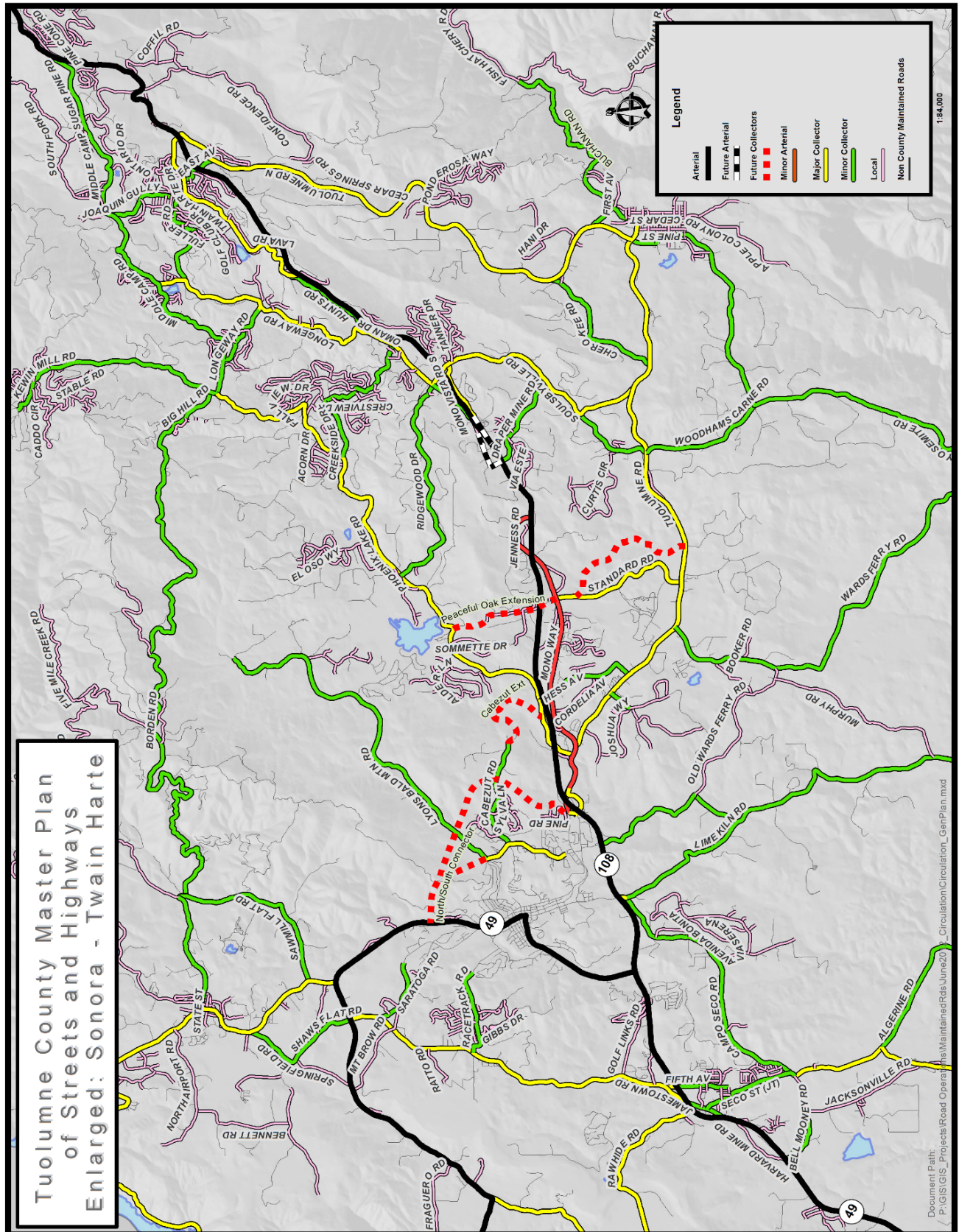


FIGURE 4:2



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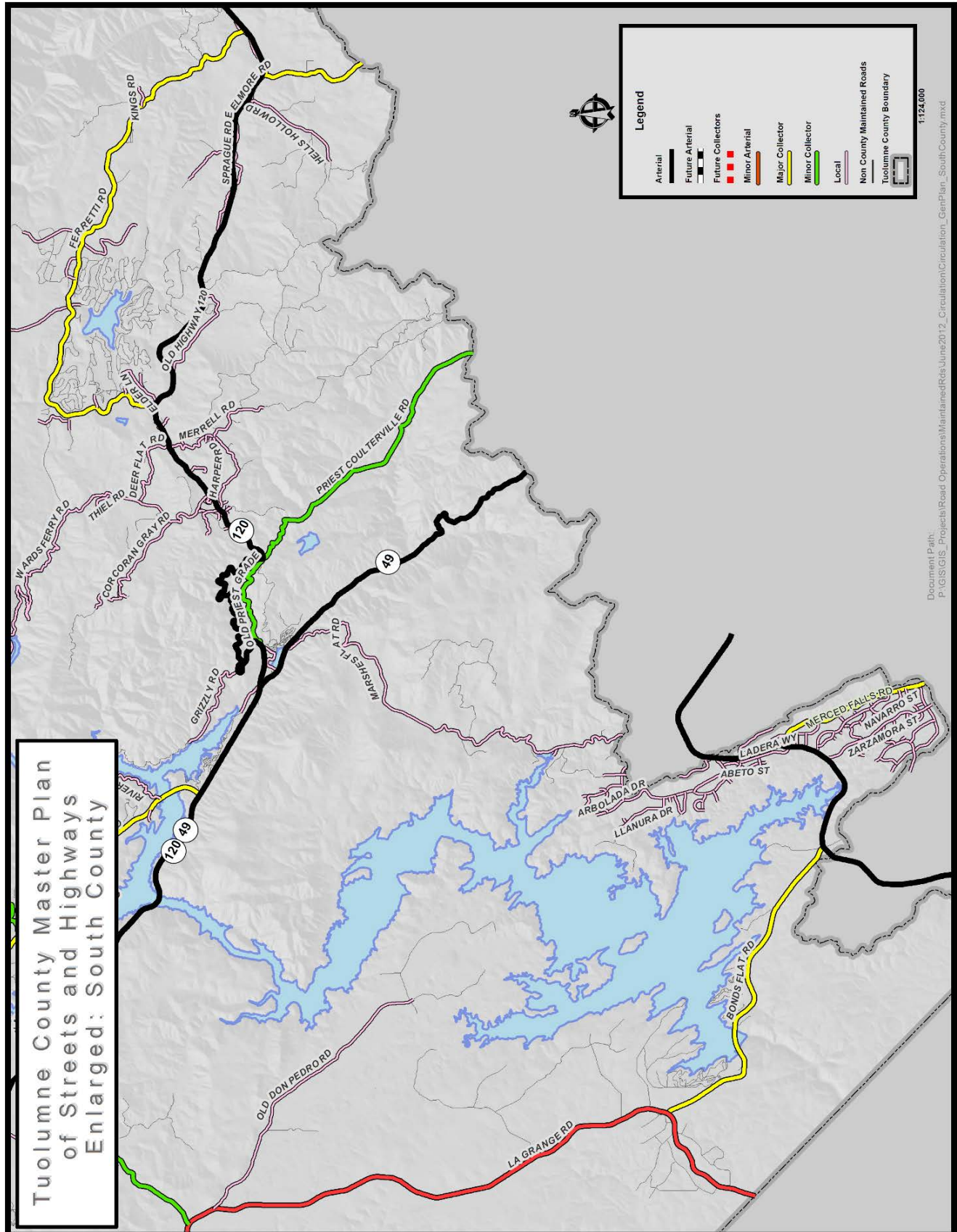


FIGURE 4:3



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C. SCENIC ROUTES

A scenic route is one which traverses an area of outstanding scenic quality. Portions of State Highways 49, 108 and 120 are designated locally as scenic routes.

TABLE 4.1: SCENIC ROUTES	
Route	Description
State Highway Route 49	This route traverses the western foothills and Mother Lode and connects many historical sites and towns. This highway shall be designated as a Scenic Route from the Mariposa County line to Route 120 near Moccasin Creek and from Route 120 at Chinese Camp to the Calaveras County line, exclusive of the City of Sonora. This highway is included in the "Master Plan for State Scenic Highways".
State Highway Route 108	The Sonora Pass Highway, from Route 49 easterly into Mono County. This, like State Route 49 described above, gives access and exposure to spectacular mountain country. This route is also in the "Master Plan for State Scenic Highways".
State Highway Route 120	From Route 49 near Chinese Camp easterly to Route 49 near Moccasin Creek. This route is also in the "Master Plan for State Scenic Highways".
The land use restrictions on Scenic Routes and lands adjacent to them as outlined in the Streets and Highways Code of the State of California shall only apply to lands designated as non-urban on the General Plan land use diagrams. Land designated as TPZ or AG when the parcel is 37 acres or larger and supports an agricultural or residential land use or is vacant shall be exempt from these restrictions.	

D. TRAFFIC/TRANSPORTATION STUDY

The traffic analysis of the existing and future traffic operations for key roadways and intersections in Tuolumne County under the conditions of the development proposed in the General Plan is based on the General Plan and Regional Transportation Plan (RTP) Update EIR Traffic Study (Traffic Study) prepared for the Tuolumne County Transportation Council by Wood Rodgers in September of 2015, and the subsequent addendum to this report (Traffic Study Addendum) that was completed by Wood Rodgers in August of 2016.

E. PLAN FOR BALANCED MULTI-MODAL TRANSPORTATION NETWORK

An "Urban Street" provides access for automotive and transit vehicles as well as increased pedestrians and bicyclist usage to the urbanized areas of the County, such as the City of Sonora. Urban streets are all those portions of County roads within one mile of a traffic signal/stop control and/or that have eight (8) or more access points per mile within an adopted community boundary. Urban street designs must accommodate all modes of transportation.

Users of Public Transportation – Public transportation, referred to as transit, has helped foster traditional community values in Tuolumne County. Transit effectively promotes economic development, enables work and help build a sense of community. The transit needs of persons in Tuolumne County are met primarily through a cooperative effort of social service organizations, private enterprise, volunteers and the Tuolumne County Transit Agency public transit system. This combined effort allows transit dependent persons, such as senior citizens, persons with disabilities, youths and person of limited means to patronize local businesses, contribute to



community activities, participate in recreational activities and access health/public services. Perhaps most importantly, public transportation provides an important link between public assistance and eventual self-reliance by providing access to educational and employment opportunities. Public transit is increasingly considered a mode of transportation, creating new challenges for rural transit systems. Additionally, tourists often prefer public transit over private automobiles.

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

Trails - The number of existing bicycle, pedestrian and equestrian trails in Tuolumne County is limited. Many of these trails have been constructed by private volunteer efforts. The current focus is on short, high impact, less expensive routes. While this means that some of the planned routes could realistically be built with currently available funds, additional funding is desperately needed if enough of these routes are to be built to significantly reduce impacts on road circulation. Furthermore, continued volunteer aid should be sought from local civic groups to construct facilities to satisfy the County's recreational needs.

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

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

F. HELIPORTS/AIRPORTS

A heliport is located at the Adventist Health Sonora/Sonora Community Hospital medical complex in the City of Sonora. Additionally, several heliports are located in United States Forest Service lands.

General aviation needs in Tuolumne County are met by two County owned and operated airports; the Columbia Airport. Columbia Airport provides service to Columbia and surrounding areas in northwestern Tuolumne County, including a fly-in campground. Pine Mountain Lake Airport provides service to the area surrounding Pine Mountain Lake near Groveland in southwestern Tuolumne County. During the fire season, the Columbia Airport is host to the California Department of Forestry and Fire Protection (CAL FIRE) Columbia Air Attack Base. During wildland fire emergencies, the Pine Mountain Lake Airport often serves as a staging area for helicopter operations, though the runway is too short to accommodate air tankers. Both airports also serve as staging areas for medical evacuations and search and rescue operations.



Operation of the two airports is overseen by the Tuolumne County Airports Department. The Tuolumne County Airport Land Use Commission is charged with insuring that development in the vicinity is consistent with the continued safe operation of the airports. To guide them in their determinations, the Commission applies the policies contained in the Tuolumne County Airport Land Use Compatibility Plan (ALUCP), adopted on January 22, 2003, as it may be amended from time to time. The ALUCP is limited to roughly a 2- to 3-mile vicinity around the two airports. The Land Use Compatibility Plans for Columbia Airport and Pine Mountain Lake Airport are presented in Chapter 1, Section D.

Land uses prohibited by the ALUCP zones are described in Table 4.2 below

TABLE 4.2: AIRPORT LAND USE COMPATIBILITY ZONES		
Zone	Location	Prohibited Uses
A	Runway Protection Zone or Within Building Restriction Line	All structures except ones required by aeronautical function Assemblages of people Objects exceeding FAR Par 77 height limits Aboveground bulk storage of hazardous materials Hazards to flight
B1	Approach/Departure Zone and Adjacent to Runway	Children's schools, day care centers, libraries Hospitals, nursing homes
B2	Extended Approach/Departure Zone	Highly noise-sensitive uses (e.g., outdoor theaters) Above ground bulk storage of hazardous materials Hazards to flight
C	Common Traffic Pattern	Children's schools, day care centers, libraries Hospitals, nursing homes Hazards to flight
D	Other Airport Environs	Hazards to flight
Source: Tuolumne County ALUC 2003		

G. RAIL

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

H. TERMINALS

No freight, port or rail terminals are located in Tuolumne County.



I. MILITARY AIRPORTS AND PORTS

No military airports or ports are located in Tuolumne County

J. OTHER LOCAL PUBLIC UTILITIES AND FACILITIES

Public utilities and facilities are discussed in Chapters 3 and 9, respectively.

K. FUNDING FOR EXISTING NETWORK, PLANNED ADDITIONS AND IMPROVEMENTS TRIGGERED BY POLICIES

Several policies of the Tuolumne County General Plan address funding circulation improvement needs:

- Policy 4.A.1, Implementation Program 4.A.c
- Policy 4.A.3, Implementation Program 4.A.l and Implementation Program 4.A.m
- Policy 4.A.5, Implementation Program 4.A.q
- Policy 4.A.6, Implementation Program 4.A.t
- Policy 4.A.7
- Policy 4.B.3, Implementation Program 4.B.i
- Policy 4.B.6, Implementation Program 4.B.z, Implementation Program 4.B.aa, and Implementation Program 4.B.bb

L. ROAD SYSTEM OPERATING CONDITIONS

The Tuolumne County road system was evaluated in conjunction with the Tuolumne County Regional Transportation Plan Update in 2015 to determine the operating level of service rating on all Arterial and Collector roads. The level of service (LOS) of roadways is a qualitative measure of the operating conditions on a section of roadway. It is defined by the motorists' perception of their mobility and comfort. In general, LOS "A" through LOS "C" indicate minimal or acceptable delays. LOS "D" represents high density stable flow with motorists feeling noticeable congestion. LOS "E" indicates the roadway is operating at or near its capacity and there are frequently intolerable delays. LOS "F" means the traffic volume is higher than the capacity of the roadway so queuing will occur; there will be excessive delay and stop and go conditions through the queue until the demand level drops off. According to Implementation Program 4.A.b of the Tuolumne County General Plan, deficient County roadways are those which operate at LOS F.

The impacts of projected growth in Tuolumne County have been studied per the population estimates in the Regional Blueprint project and it has been found that many of the future roadway deficiencies will occur on segments which have a degree of current deficiency. The traffic conditions on those segments will generally worsen by at least one level of service, unless improvements are constructed to accommodate increased traffic volumes. The County has a Capital Improvement Program (CIP) to mitigate growth impacts to the regional road system through the payment of fees for construction of road improvements or dedications of right-of-ways. Table 4.3 illustrates how the road system will operate with growth but no improvements (Base Case) and with growth and full implementation of a CIP with both State and County road improvements.



TABLE 4.3: ROAD SYSTEM OPERATIONS			
Level of Service	2010	Base Case	w/CIP
	% Share	% Share	% Share
A-D	95%	94%	96%
E	1%	2%	1%
F	4%	4%	3%
Source: Capital Improvement Program			

Note that, when compared with the Base Case scenario, roadway deficiencies operating at LOS E and F, have been reduced from six percent to four percent. Level of Service analysis shows most deficiencies are on the State Highway System or on major roadways in and around the City of Sonora. However, this General Plan recognizes the major funding limitations that currently exist in the State of California. These limitations threaten the ability of responsible agencies to deliver needed projects. Furthermore, there are substantial shortfalls in funding for maintenance and operation of existing transportation facilities and services that must be resolved if California is to maximize its investment in the existing system. Finally, impact fees usually fail to not only generate sufficient revenue to pay for new facilities needed to accommodate new growth, but are restricted by law from paying for correction of existing deficiencies. Use of impact fees as the only method of replacing the decreases in public funding raises serious questions about cost allocation equity.

The cross-sections below in Figures 4.4, 4.5, and 4.6 are typical illustrations of minimum road improvements required. However, additional right-of-way or paved sections may be required to accommodate additional travel lanes, drainage, utilities or grading.

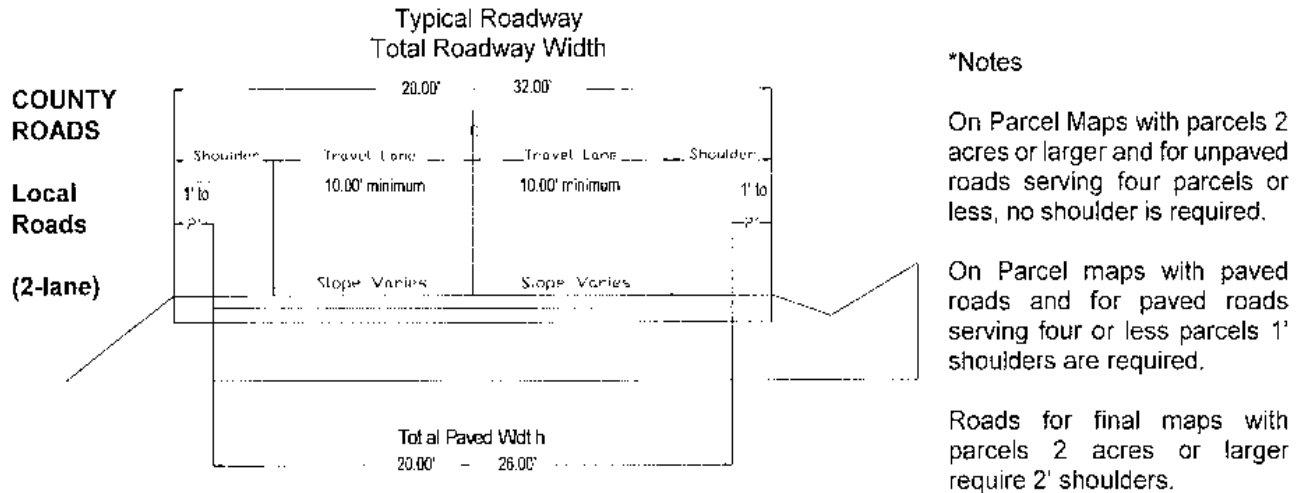


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Typical Cross-Sections

The cross-sections below are typical illustrations of minimum road improvements required. However, additional right-of-way or paved sections may be required to accommodate additional travel lanes, drainage, utilities or grading.



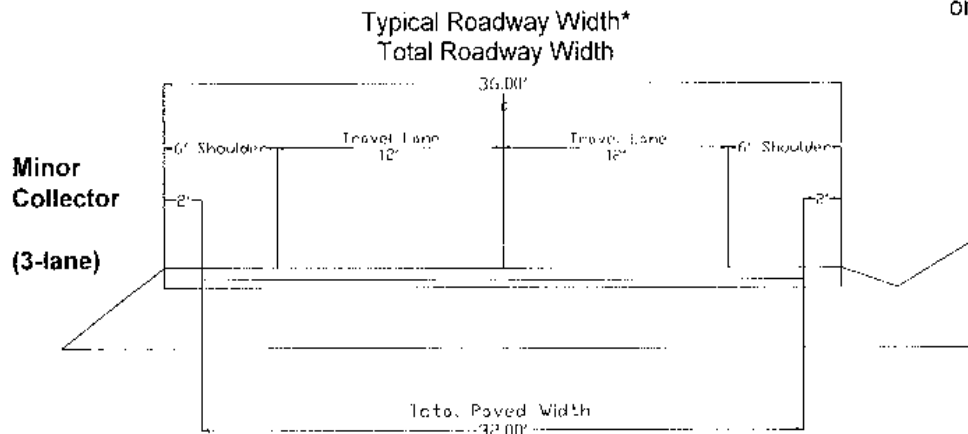
Local Road Minimum

50 ft. right of way unless otherwise increased or decreased pursuant to the Tuolumne County Ordinance Code or approved Planned Unit Development.

* When appropriate additional roadway width may be required to accommodate auxiliary turn lanes or shoulders.

Urban development on final maps require 4' shoulders with 3' paved.

Not required for final maps with minimum parcel size of 5 or more acres, or for parcel maps with minimum parcel size of 2 or more acres.



Minor Collector Minimum Road Section

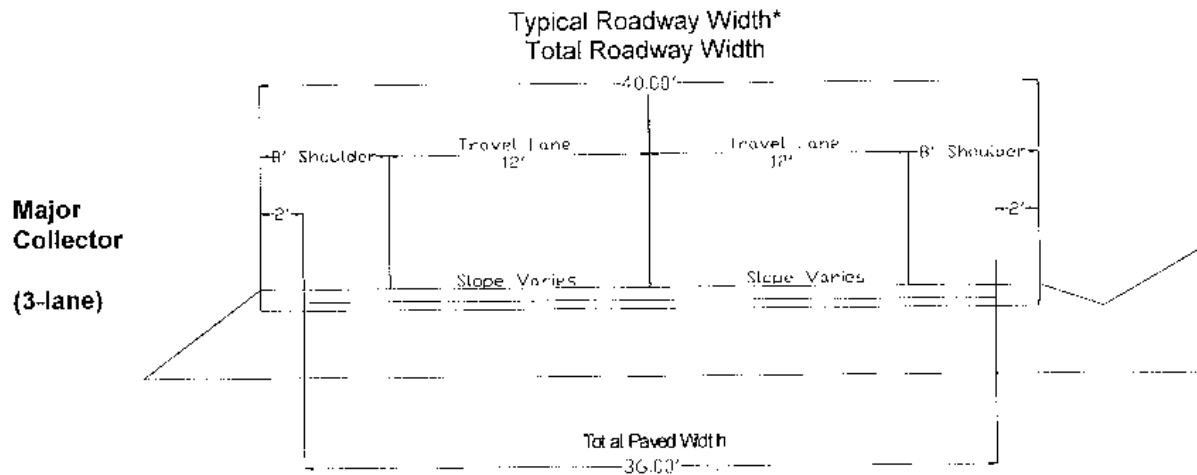
64 ft. right of way unless otherwise increased or decreased pursuant to the Tuolumne County Ordinance Code or approved Planned Unit Development.

* When appropriate additional roadway width may be required to accommodate auxiliary turn lanes.

FIGURE 4.4 TYPICAL CROSS SECTIONS



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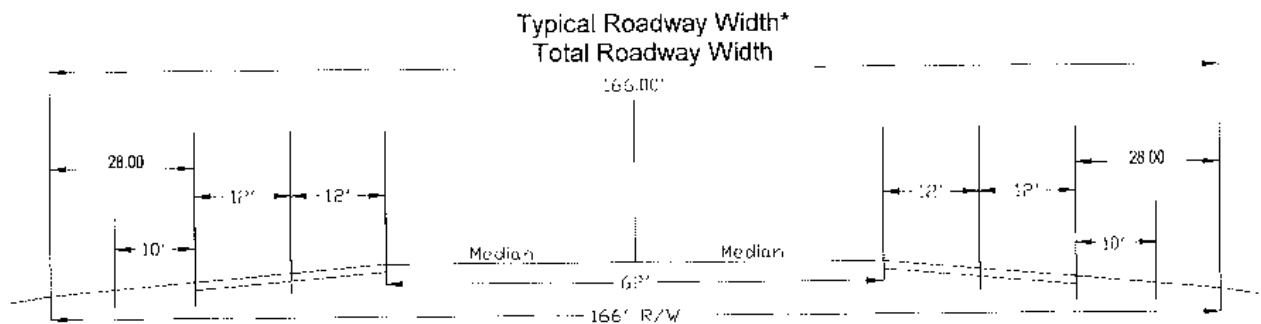


Major Collector Minimum Road Section
80 ft. right of way unless otherwise increased or decreased pursuant to the Tuolumne County Ordinance Code or approved Planned Unit Development.

* When appropriate additional roadway width may be required to accommodate auxiliary turn lanes.

STATE HIGHWAYS

Rural Expressways



166 ft. right of way unless otherwise increased or decreased pursuant to the Tuolumne County Ordinance Code or approved Planned Unit Development.

* When appropriate additional roadway width may be required to accommodate auxiliary turn lanes or additional width for cut and fill slopes.

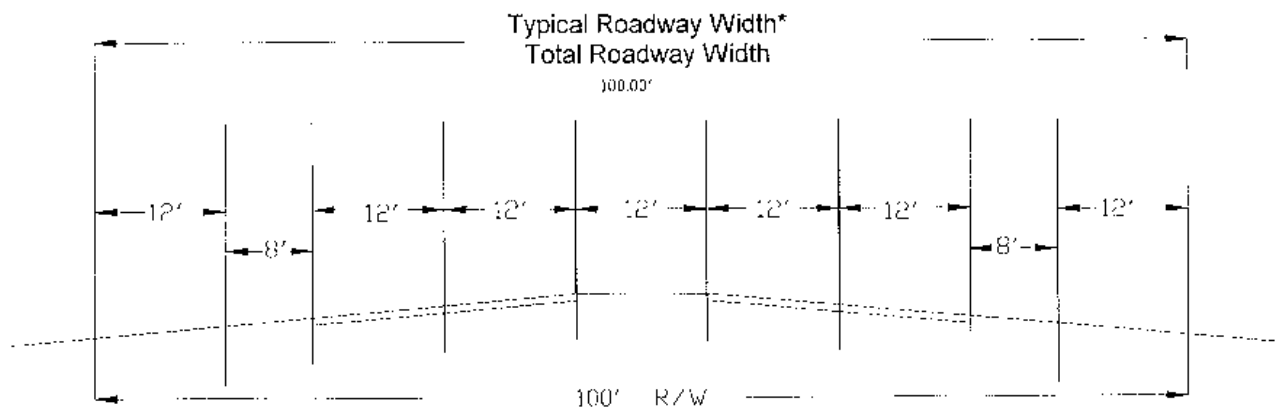
FIGURE 4.5: TYPICAL CROSS SECTIONS



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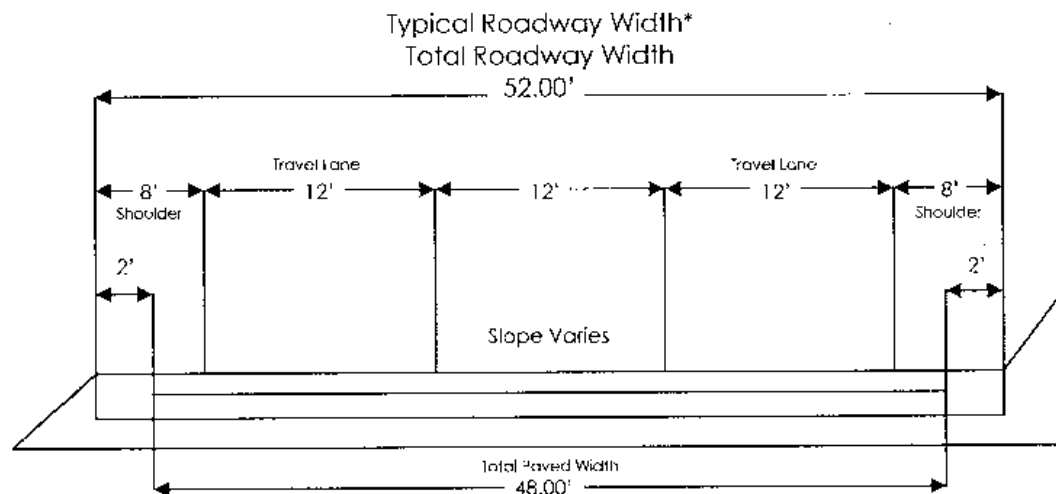
Other Principal Arterials



100 ft. right of way unless otherwise increased or decreased pursuant to the Tuolumne County Ordinance Code or approved Planned Unit Development.

* When appropriate additional roadway width may be required to accommodate auxiliary turn lanes.

Minor Arterials



100 ft. right of way unless otherwise increased or decreased pursuant to the Tuolumne County Ordinance Code or approved Planned Unit Development.

*When appropriate additional roadway width may be required to accommodate auxiliary turn lanes.

FIGURE 4.6: TYPICAL CROSS SECTIONS



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Chapter 5

NOISE

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A. INTRODUCTION

Tuolumne County's 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. 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 Noise Element of the General Plan which provides a policy framework for addressing potential noise conflicts encountered in the development process with a focus on minimizing such conflicts.

The content of this Noise Element and the methods used in its preparation follows the requirements of Section 65302(f) of the California Government Code and the General Plan Guidelines prepared by the State Office of Planning and Research (OPR). The OPR Guidelines require that major noise sources and areas containing noise-sensitive land uses be identified and quantified by preparing generalized noise exposure contours for current and projected conditions. Noise-sensitive uses identified by the Government Code and by Tuolumne County include urban residential development, schools, hospitals, convalescent homes, churches and libraries. In accordance with the Government Code requirements, noise exposure information has been collected for highways, arterials and major collector roads, railroad operations, aircraft and airport operations, local industrial facilities and other stationary sources.

The data collected concerning noise-producing sources are found within the *Noise Background Report* General Plan EIR. Tuolumne County's Noise Element The policies and programs contained herein have been integrated with the other Elements of this General Plan to minimize the potential for noise conflicts arising from future development in Tuolumne County.

B. REQUIREMENTS FOR AN ACOUSTICAL ANALYSIS

According to the Noise Element of the General Plan, if a proposed project requires an acoustical analysis, the following must be met:

- Be the financial responsibility of the applicant.



- Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.
- Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and significant noise sources. Where actual field measurements cannot be conducted, all sources of information used for calculation purposes shall be fully described.
- Estimate existing and projected (20 years) noise levels of the noise generating source and compare those levels to the adopted policies of the Noise Element. Projected future noise levels shall take into account noise from planned streets, highways and road connections.
- Recommend appropriate mitigation to achieve compliance with the adopted policies of the Noise Element, giving preference to proper site planning and design over mitigation measures which require the construction of noise barriers or structural modifications to buildings.
- Estimate noise exposure after the prescribed mitigation measures have been implemented.

C. HOW NOISE CONTOURS GUIDES ESTABLISHMENT OF LAND USE PATTERN

Information relative to existing and future noise environments within Tuolumne County should be integrated into future land use planning decisions. The Noise Element seeks to characterize the noise environment in order for the County to be able to include appropriate noise impact considerations in future land use decisions. Noise and land use compatibility guidelines are presented and noise standards for new developments are set forth in Tables 5.1, 5.2, 5.3 and 5.4. This information will help County staff to identify and avert potential incompatibilities between proposed land uses and the subject noise environment.

D. FREEWAYS, HIGHWAYS, PRIMARY ARTERIES AND MAJOR LOCAL STREETS

Sensitive receptors most affected by roadway noise are those immediately adjacent to roadways and corridors with high traffic volume, such as State Routes (Highways) 49, 108, 120 and 132, as well as other local high-volume streets. None of the state routes (highways) are freeway interstates. 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 existing (2015) and future (2040) road noise contours, as well as a comparison of them are provided for in Tables 3.12-2, 3.12-8, 3.12-9, respectively of the EIR of the General Plan. The interior and exterior noise standards (Table 5.1) establish maximum transportation noise levels that are allowable for new development in Tuolumne County. 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 5.1: MAXIMUM ALLOWABLE NOISE EXPOSURE-TRANSPORTATION NOISE SOURCES EXCLUDING AVIATION RELATED NOISE¹

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

Notes:

1. 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.
2. 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.
3. 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.
4. 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.
5. These standards only apply to nursing homes or schools that have more than 6 beds or students, respectively.

Measures and Solutions that Address Existing and Foreseeable Road-Related Noise Problems: Implementation of General Plan noise-related 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 (mitigation) would be implemented on a case-by-case basis. 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, however.

E. PASSENGER AND FREIGHT ONLINE RAILROAD OPERATIONS

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 urbanized areas of Jamestown and Sonora. The railroad not only provides local 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.

Measures and Solutions that Address Existing and Foreseeable Railroad-Related Noise Problems: Development associated with the General Plan Update could result in new sensitive land uses in close proximity to the existing railroad. Implementation of General Plan policy 5.A.6, however, 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.

F. AIRPORT/HELIPORT USE, OPERATION AND OVER-FLIGHTS

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. The airport is used mostly for general aviation aircraft. Pine Mountain Lake Airport covers 52 acres and has one runway. Columbia Airport covers an area of 356 acres which contains two runways. General Aviation Aircraft make up about 96 percent of the flight operations, with the remainder comprising about 4 percent air taxi, and 1 percent military aircraft. Columbia Airport is also the home of a CAL FIRE Air Attack Base. The Tuolumne County Airport Land Use Compatibility Plan, adopted in January 2003, includes calculated 2015 noise contour maps for both the Pine Mountain Lake Airport and Columbia Airport, shown in Figures 1.1 and 1.2.

The Airport Land Use Commission 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 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 5.2 below shows the maximum allowable noise exposure from aircraft-related sources.



TABLE 5.2: MAXIMUM ALLOWABLE NOISE EXPOSURE-AIRCRAFT NOISE SOURCES¹

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

Notes:

1. 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.
2. 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.
3. 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.
4. L_{max} refers to the maximum interior noise level. The design L_{max} 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_{max} 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.
5. 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.
6. These standards only apply to nursing homes or schools that have more than 6 beds or students, respectively.

Measures and Solutions that Address Existing and Foreseeable Airport-Related Noise Problems: Future development under General Plan Update could fall within the noise impact areas of the Columbia and Pine Mountain Lake Airports. However, policies and associated implementation programs in the General Plan require new development located in close proximity to existing airports to be designed such that aircraft noise standards are not exceeded. Further, 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.



G. GROUND STATIONARY NOISE SOURCE, INDUSTRIAL PLANTS, MINES AND AGRICULTURE

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., OSHA and Cal-OSHA), but exterior noise from such operations may exceed locally acceptable standards at nearby noise-sensitive land uses.

Agricultural operations are located throughout Tuolumne County. Due to the seasonal nature of traditional agricultural industries, 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. On the other hand, agritourism, a relatively recent ag-based industry, can occur throughout the year.

Table 5.3 below shows the maximum allowable noise exposure from stationary sources.

TABLE 5.3: MAXIMUM ALLOWABLE NOISE EXPOSURE-STATIONARY NOISE SOURCES¹		
	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly L_{eq} , dB ²	50	45
Maximum level, dB ³	70	65
Notes: 1. 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. 2. 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. 3. Similar to the hourly L_{eq} , except this level should not be exceeded for any length of time.		

Measures and Solutions that Address Existing and Foreseeable Stationary-Related Noise Problems: Mining, timberland production, sawmills, agricultural operations, and other commercial or industrial operations could be potential stationary noise sources or generate substantial levels of noise. 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. For development that would occur near noise-sensitive areas where noise levels already exceed the standards shown in Table 3.12-6 (General Plan EIR), 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.

H. CALIFORNIA NOISE INSULATION STANDARDS, CALIFORNIA CODE OF REGULATIONS, TITLE 24

The State has established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. The noise insulation standards set forth an interior standard of DNL 45 dB in any habitable room. Where such units are proposed in areas subject to noise levels greater than DNL 60 dB, the State Code requires an acoustical analysis to demonstrate that the dwelling units have been designed to meet the interior noise standard. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

I. CUMULATIVE NOISE STANDARDS

Table 5.4 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 5.4: SIGNIFICANCE OF CHANGES IN CUMULATIVE NOISE EXPOSURE ¹	
Ambient Noise Level Without Project (L _{dn} or CNEL) 2	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: 1. 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 Table 5.1 shall be accomplished and the results considered in project design. 2. 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. Source – Tuolumne County General Plan Noise Element, Federal Interagency Committee on Noise (FICON), Federal Agency Review of Selected Airport Noise Analysis Issues, August 1992	



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Section B

The Tuolumne County Economy





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Chapter 6

ECONOMIC DEVELOPMENT

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A. INTRODUCTION

The purpose of economic development is to raise the standard of living for everyone in a region by optimizing human, financial, natural and cultural capital to produce income, goods and services to support the region and for export. Well planned economic development should in so far as possible include: (1) improve employment and business opportunities for local citizens; (2) stimulate business activity; (3) increase revenues for public agencies through expansion of the tax base; (4) encourage private investment in the local economy; (5) improve overall quality of life in the region; (6) recognize and act on opportunities for economic expansion; (7) take advantage of domestic and international markets; and (8) integrate natural and cultural resources into new development projects. Economic development activities within a region are broad based and include the public, private and non-profit sectors and their involvement in retail, wholesale, recreational, agricultural, health care, manufacturing, service, tourist and industrial activities.

Recognizing the need to exert proactive leadership in helping the County develop a healthy and diversified economy, the Tuolumne County Board of Supervisors and Sonora City Council adopted a joint Economic Development Policy in 1990. Through that policy, the County of Tuolumne made a commitment to promote a positive image of the County and a positive attitude and support towards economic development among other local organizations and agencies outside of Tuolumne County. The County also pledged to act as a catalyst for the divergent segments of the local economy, and offer a forum and mechanism for the identification of problems and associated solutions. One mechanism identified in the Economic Development Policy for addressing these issues was an Economic Development Element to be added to the County's General Plan. Another mechanism is the Tuolumne County Economic Development Authority (EDA), a joint powers authority created by the County of Tuolumne and the City of Sonora in 2009, whose mission is to facilitate a local economy that is innovative, resilient and diverse. The EDA accomplishes this by assisting in formation, retention and expansion of existing businesses, and attraction of new businesses to Tuolumne County.

In addition to committing to the formulation of an Economic Development Element, the Board of Supervisors also pledged to support studies to evaluate the County's attributes and liabilities related to economic development. Those studies include the Tuolumne County Community Assessment completed in September, 1991, and the Tuolumne County Target Industry Study released in October, 1991. The Tuolumne County Economic Development Strategy Plan, completed in 1994, consists of several different components, including the Regional Plan, Permit Process Analysis, Entrepreneurial Support Plan, Education and Training Opportunities, Business Retention and Expansion and Business Attraction Plan. The findings and recommendations contained in those studies are reflected in this Element.



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Chapter 7

MANAGED RESOURCES

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A. INTRODUCTION

Tuolumne County includes a variety of hardwood, coniferous and mixed woodlands and forests (Figure 7.1). Some of these lands are regarded as *timberlands*, which are defined as commercially viable land producing fiber or forest products, or capable of producing a crop of trees with an aggregate growth potential in excess of 20 cubic feet per acre per year. While there are timberlands within local National Forests, the County's Timberland Production Zone (TPZ) is a land use designation in its General Plan that identifies nonfederal timber producing lands for special County tax assessments, as required by the State Forest Taxation Reform Act of 1976. This Act was amended and replaced by the Timberland Productivity Act of 1982.

The TPZ designation provides for the growing and harvesting of timber and other forest products in concert with limited, low-intensity public and private commercial recreational uses, encompassing 85,634 acres, or 5.89% of the land area of Tuolumne County. This designation is found primarily in the eastern part of the County at elevations above 3,000 feet and is interspersed with federally owned land within the Stanislaus National Forest and Yosemite National Park.

B. MINERAL RESOURCES

Tuolumne County has extensive mining history and resources. Current operating mines in Tuolumne County gather limestone and dolomite, and various forms of crushed rock, gravel, and sand products. The General Plan Land Use Element designates lands as Mineral Preserve (-MPZ) overlay throughout the County, including those lands identified below.

The Surface Mining and Reclamation Act of 1975 (California Public Resources Code [PRC] Section 2710 et seq.) (SMARA) provides for the classification of non-fuel mineral resources in the state to show where economically significant mineral resources occur or are likely to occur. Classification is carried out under the Mineral Land Classification Project under the direction of the State Geologist. Once lands have been classified, they may be designated by the State Mining and Geology Board (SMGB) as mineral-bearing areas of statewide or regional significance if they are located in areas where urban expansion or other irreversible land uses may occur that could restrict or preclude future mineral extraction. Designation is intended to prevent future land use conflicts and occurs only after consultation with lead agencies and other stakeholders.

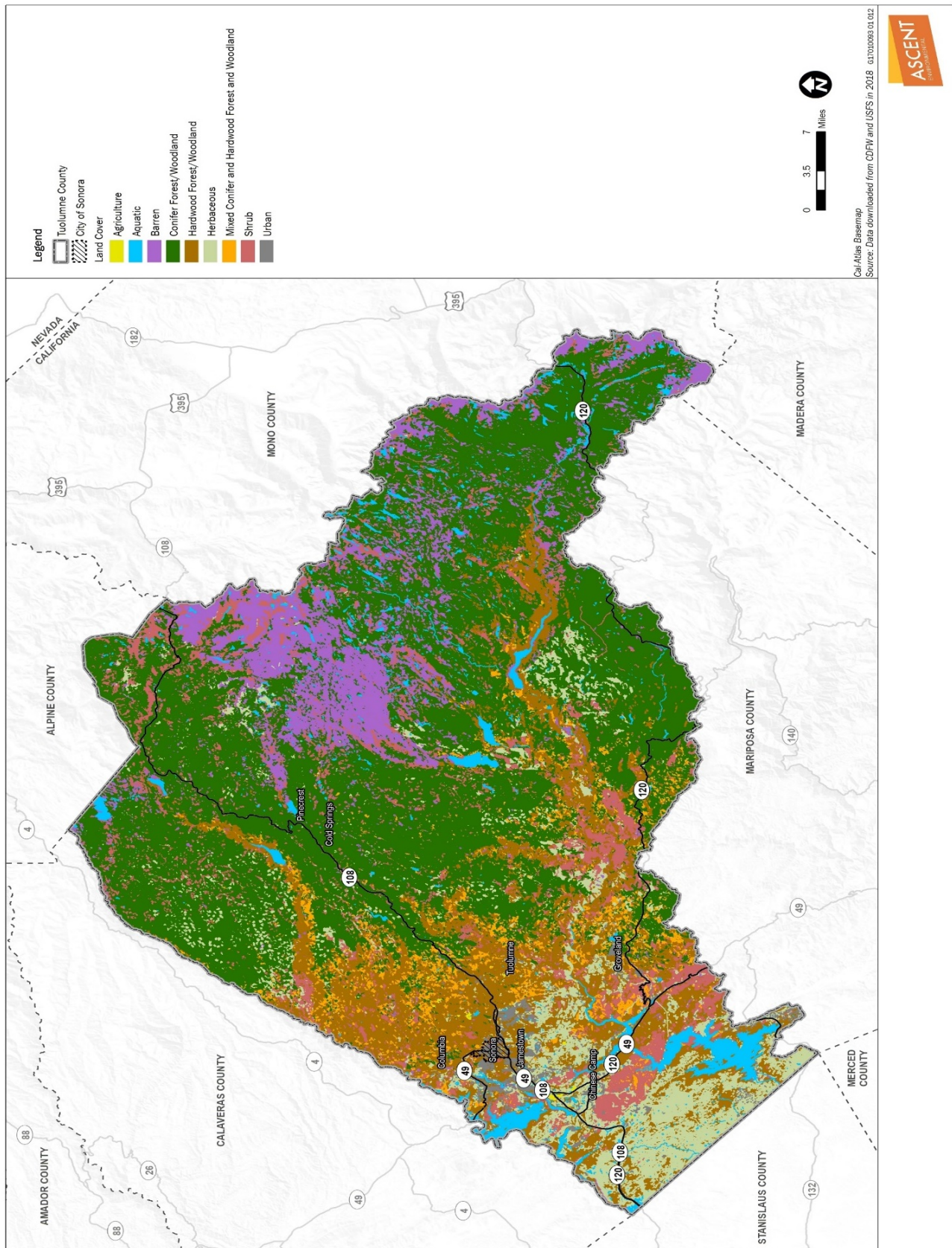


The California Department of Conservation (DOC) Division of Mines and Geology (DMG) has developed guidelines for the classification and designation of mineral lands, known as Mineral Resource Zones (MRZs) and retains a list of publications of the SMARA Mineral Land Classification Project dealing with mineral resources in California. A number of properties in the county have been classified as State Mineral Resource Zones, including the Southern Half of the Bald Mountain/ Browns Flat Gold Mining District (MRZ-2b), the Jamestown Mine (MRZ-2a, MRZ-2b, and MRZ-3a), and portions of the Rough and Ready Creek site (MRZ-2a and MRZ-2b). Various properties with precious metals, carbonate rock, and concrete-grade aggregate resources have been classified as State Mineral Resource Zone (MRZ-2a, and MRZ-2b) as identified by the Division of Mines and Geology Open-File Report 97-09, 1997. A summary of these classifications are presented in Table 7.1.

In addition, the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) maintains records of the location and details of construction and abandonment of all oil and gas wells. Oil wells were not identified within Tuolumne County using the Division of Oil, Gas & Geothermal Resources Well Finder.

TABLE 7.1: CALIFORNIA MINERAL LAND CLASSIFICATION DIAGRAM

TABLE 7.1: CALIFORNIA MINERAL LAND CLASSIFICATION DIAGRAM					
	Areas of Identified Mineral Resource Significance		Areas of Undetermined Mineral Resource Significance		Areas of Unknown Mineral Resource Significance
ECONOMIC	MRZ-2a Demonstrated Reserves	MRZ-2b Inferred Resources	MRZ-3a Known Mineral Occurrence	MRZ-3b Inferred Mineral Occurrence	MRZ-4 No known mineral occurrence
MARGINALLY ECONOMIC	MRZ-2a Marginal Reserves	MRZ-2b Inferred Marginal Resources			
SUB-ECONOMIC	MRZ-2B Demonstrated Sub-economic Resources	MRZ-2b Inferred Sub-economic Resources			
NON-ECONOMIC MRZ-1	Areas of no Mineral Significance				
Source: California Department of Conservation DMG					





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Chapter 8

AGRICULTURE

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A. INTRODUCTION

The purpose of the Agricultural Resources Element is to acknowledge the importance of agricultural production in and to Tuolumne County and to establish policies and implementation programs to promote the stability and productivity of the County's agricultural lands and industries.

Currently 160,735 acres in unincorporated Tuolumne County are designated for Agricultural land use, which accounts for 10.80% of total land in the County. Grazing land comprises the majority of Agricultural land (approximately 104,471 acres). Other agricultural operations in the County include poultry, timber, fruits and vegetables, field crops, and apiaries and nurseries.

The United States Department of Agriculture ("USDA") Census of Agriculture ("Census") tracks statewide, regional, and county agritourism operations data. The USDA Census is based on self-reported data collected every five years, with the latest available data published in 2012. The Census of Agriculture indicates that in Tuolumne County in 2002, 2007, and 2012, land in farms totaled 149,767, 117,085, and 87,813 acres respectively. Since these numbers are based on self-reporting, they are likely to encompass agricultural uses on lands that are not designated AG. Approximately 120,083 acres are currently enrolled in Williamson Act contracts, 5,379 acres of which have filed non-renewal notices, and 131,313 acres are located within designated Agricultural Preserves.

The General Plan Update involves designation of 4,509 acres of land currently designated "Agricultural" to other land uses. Of this re-designated land, approximately 286 acres are located on public land under the jurisdiction of another local, state, or federal agency and 370 acres are being re-designated to TPZ to reflect the current zoning and land use. One hundred and thirty-six parcels, totaling 3,589 acres, are being redesignated to ER, HR, RR, and LR land use designations, which are rural residential designations that allow general farming and ranching in addition to a residence, with minimum parcel sizes ranging from two to ten acres in size. Sixty three parcels, totaling 241 acres, are being re-designated to urban land uses, such as LDR and MDR. Approximately 21 acres are changing to R/P and 2 acres to NC, to reflect the current zoning on those properties.

The Agricultural Rating Matrix in Table 8.1 is used by Tuolumne County to evaluate the quality of specific agriculture property when a change is proposed on that project site or an adjacent project site. A variety of factors are considered when making a value (non-financial) determination, including the property size, terrain, availability of public services, and suitability for agriculture use. These factors are intended to value intensive larger agricultural operations in more rural areas over smaller operations where an agriculture use may not be the primary use of the property.



B. RIGHT TO FARM

Where non-agricultural land uses, especially residential development, occur adjacent to agricultural land, agricultural operations may become the subject of nuisance complaints. Tuolumne County's "Right to Farm Ordinance," located in Chapter 5.20 of the Ordinance Code, is intended to reduce the loss of agricultural resources by limiting the circumstances under which agricultural operations may be considered a nuisance.

Further, the Right to Farm Ordinance is intended to promote a "good neighbor policy" between agriculturalists and residents by advising purchasers and residents of nearby property of inherent potential problems such as sounds, odors, dust, and chemicals from agricultural operations. Neighbors also are notified that they should be prepared to accept such inconveniences or discomforts as a normal and necessary aspect of living in a county with a strong rural character and a healthy agricultural sector.

C. AGRITOURISM

Existing agricultural industries are a major contributor to the County's economy, and to protect the viability of this valuable industry, the General Plan Update encourages productive use of valuable agricultural lands, and reduces economic pressures for conversion of agricultural lands by allowing accessory or complementary uses to agricultural operations. The General Plan Update also includes amendments to Title 17 of the County's Ordinance Code, which would expand the range of economic activities allowed on land zoned for agriculture. These amendments would allow agritourism activities that complement local agricultural production and special events that are accessory to the agricultural use of the land.

Currently, there are a variety of agritourism operations in the County. A listing from the current roster of the Farms of Tuolumne County organization includes agritourism operations including Christmas tree farms, apple picking and cider tasting, working ranch/farm tours and activities, weddings, livestock interactions, on-farm product tastings, and gift shops. These activities range in size from the primary use of the agricultural operation to an accessory use that supports the overall agricultural business. The majority of these businesses are located in western Tuolumne County, in and around the communities surrounding Sonora.

Agritourism presents opportunities for local farms, ranches, and other agriculture operations to share their interests and products with residents and visitors of the County. This may result in additional financial support for an operation, as well as teach others about the overall agriculture industry. In Tuolumne County, in addition to larger ranching operations, many small farms and operations are located in rural residential neighborhoods on a range of lot sizes. This is supported by existing and proposed language in the General Plan and Ordinance Code.

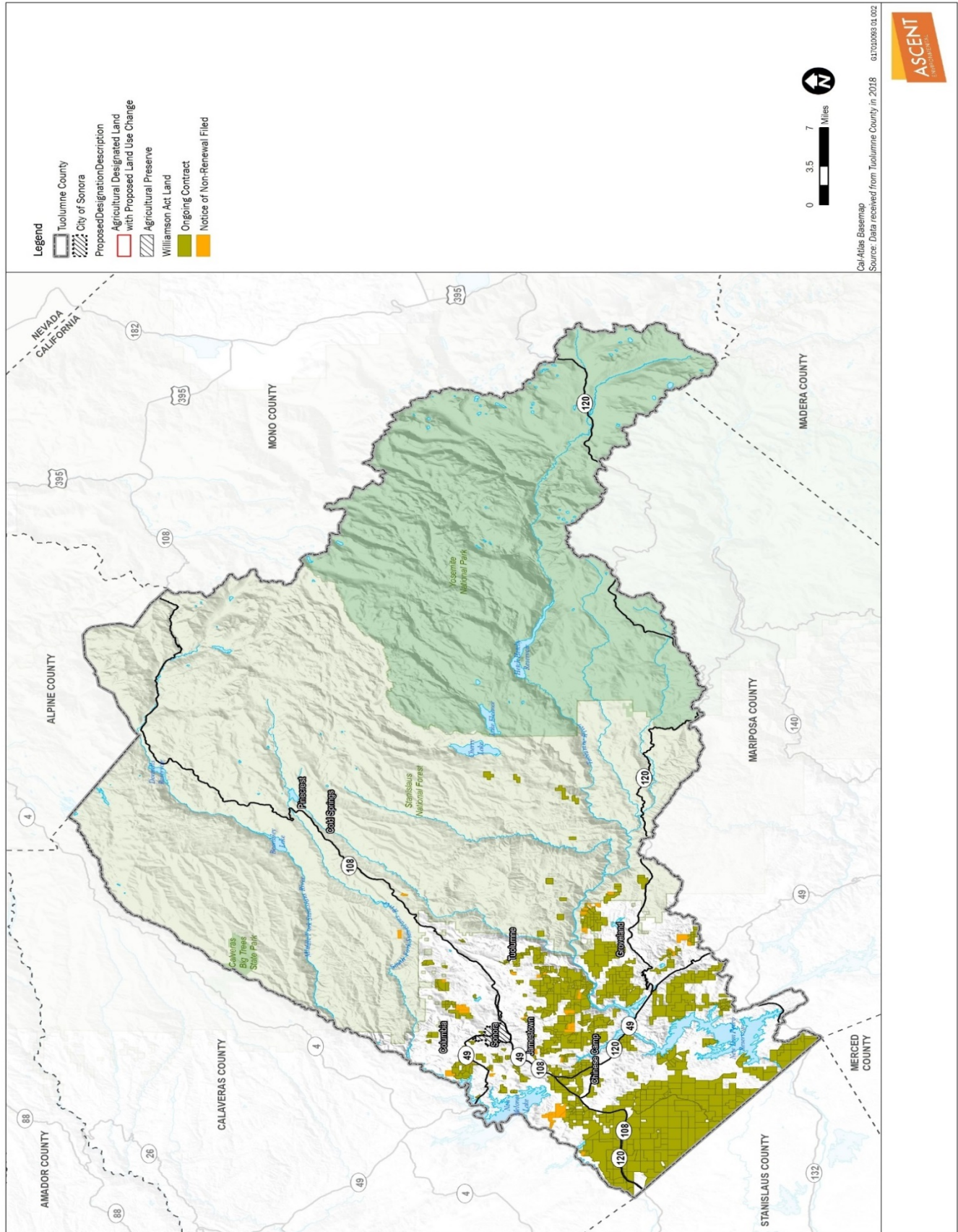


TABLE 8.1: AGRICULTURAL RATING MATRIX

Factor	Low 2	Medium 4	High 6	Very High 8	Rating Weight	Score
Production Acres (Select as many as apply) Rangeland Hay/Irrigated Pasture Orchards/Vineyards/Intensive/Specialized	<37 Ac <16 Ac <10 Ac	37-79 Ac 16-36 Ac 10-19 Ac	80-300 Ac 37-79 Ac 20-37 Ac	>300 Ac >79 Ac >37 Ac	8	(maximum total score of 64 using maximum factor score of 8 multiplied by rating weight of 8)
Long Term Ag Use (based on soil type)	UNSUITED TO LOW	LOW-MEDIUM	MEDIUM	MEDIUM-HIGH	2	(maximum score of 16)
Water Availability Natural Water	None	Intermittent Stream	Pond or Spring	Perennial Stream	2	(maximum score of 16)
Developed Water	None	Groundwater or stock pond	Reservoir	Contracted Water*	4	(maximum score of 32)
Physical Characteristics Terrain	steep terrain prevalent, slopes greater than 30 percent	some steep terrain, slopes range from 20-30 percent	gentle to rolling terrain, slopes range from 10-20 percent	level to gentle terrain, slopes range from nearly level to 10 percent	2	(maximum score of 16)
Natural Vegetation	Significant northern aspects. vegetation exemplified by chamise and manzanita.	Some northern aspects. vegetation exemplified by Live Oaks.	Mostly southern or western aspect. Vegetation exemplified by Blue Oaks, Annual Grassland	Vegetation exemplified by Blue Oaks /Valley Oaks, annual grassland.	2	(maximum score of 16)
Adjacent Use Number of non-agricultural or non-open space parcels adjacent (does not include RE-10 for purposes of this matrix).	>4	3-4	1-2	None	4	(maximum score of 32)
Number of agricultural parcels adjacent (includes A-10, A-20, A-E, and TPZ)	None	1-2	3-4	>4	4	(maximum score of 32)
Adjacent Roads	Arterial road	Collector road	Local road	None	2	(maximum score of 16)
Public Services (available for development)	All Public Services available (potable water, sewer and power at site)	Most Public Services available (potable water and power at site)	Public Services difficult to access (power only at site)	Public Services generally not available.	4	(maximum score of 32)
* e.g., Tuolumne Utilities District Ditch System, Pacific Gas and Electric Company Ditch System, Hetch Hetchy, effluent.						



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Chapter 9

PUBLIC SAFETY

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A. CRIMINAL JUSTICE SYSTEM

The criminal justice system in Tuolumne County consists of the Sheriff's Office, the court system, the District Attorney's Office, the Public Defender, the Probation Department, and the County jail. A deficiency in any portion of the system affects the entire criminal process.

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 54,357 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 Sonora. 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.

Law enforcement services are provided to the citizens of the unincorporated portion of Tuolumne County by the Tuolumne County Sheriff's Office. The duties of the Sheriff's Office include: patrolling the unincorporated areas of the County for the protection of citizens from criminal activity, responding to citizen requests for law enforcement, crime investigation, maintain jail facilities, provide Public Service Answering Point (911) services, provide Coroner services, provide Civil Process and Bailiff support of the judicial system, maintain records of crimes and arrests, issue permits and licenses, manage search and rescue efforts, provide boat Patrol Services, implement the County Abandoned Vehicle Abatement Program, and provide emergency response and management services. The Sheriff's Office and the Tuolumne County jail are located in the City of Sonora.

Population increases and social/economic changes in Tuolumne County have resulted in an increased need for public safety services, particularly in the field of law enforcement. In 2000, the Tuolumne County Sheriff's Office responded to 15,778 service events. In 2005, the Sheriff's Department received 20,964 calls for service. In 2013, the Sheriff's Office received 31,688 calls for service. As important as the increase in calls for service, has been the change in the severity of calls and cases. Domestic violence, murder, child abuse and molestation, continued drug use, and the appearance of youth gangs indicate that urban problems are present in the County. As the population of the County and, therefore, crime increases, all segments of the criminal justice system must keep pace to maintain the safety of County residents and visitors.



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.

B. FIRE PROTECTION

Section 65302(g) of the California Government Code requires that each County General Plan contain a Safety Element for the protection of the community from any unreasonable risks associated with the effects of wildland and urban fires. The Safety Element must address evacuation routes, peakload water supply requirements, minimum road widths, and clearance around structures, as those items relate to identified fire hazards.

Tuolumne County contains a diverse mixture of fire environments, ranging from urban shopping centers, multi-family developments, and small-lot subdivisions to blue oak grasslands in the west County and timber stands in the Stanislaus National Forest, including the interface, where development and natural vegetation meet.

Fire protection services within the County are provided by several agencies, representing federal, state, and local jurisdictions, with the assistance of the County's citizens serving as volunteer firefighters. Generally speaking, fire protection missions are broken into two categories; life and property fire protection and wildland fire protection. The majority of the County outside of the Stanislaus National Forest, Yosemite National Park, the City of Sonora and Tuolumne City are State responsibility areas as defined by Sections 4126-4127 of the Public Resources Code. Therefore the California Department of Forestry and Fire Protection (CAL FIRE) is responsible for wildland fire protection in these areas. CAL FIRE utilizes the Strategic Fire Plan for the Tuolumne/Calaveras Unit to plan fire prevention, protection and suppression strategies. This plan provides a comprehensive framework explaining how CAL FIRE will assess current and anticipated hazards and risks, develop objectives to mitigate those hazards and risks, establish benchmarks for success, develop strategies to meet the objectives, implement the strategies and facilitate a monitoring system to verify the plan remains connected to the needs of the Tuolumne/Calaveras Unit and stakeholders.

The fire protection agencies within Tuolumne County provide all of the services traditionally associated with fire departments throughout the nation: structural and wildland fire protection, rescue services, and medical aid responses. Complicating fire protection in Tuolumne County is the fact that the County is situated in one of the most hazardous wildland fire environments in the world. Fire protection planning efforts within the County must recognize the need to provide traditional services in light of the extreme fire hazard present within the County. Tuolumne County utilizes the Highway 108 Strategic Plan as the guidance document over the Tuolumne County Community Wildfire Protection Plan. These documents are used to guide wildland fire prevention, protection and suppression planning. The Tuolumne County Community Wildfire Protection Plan was adopted in 2004. It is a comprehensive plan that combines all of Tuolumne County's prefire components into one document. It includes the County's concept of prefire management, a description of the County, a discussion of the stakeholders, fuels, weather, level of service and assets at risk in the County; prefire management plans of fire protection agencies, fire safe councils and strategic groups in the County; and a discussion of the institutional issues related to implementation of this plan. This plan addresses how agencies within Tuolumne County are trying to mitigate the wildland fire hazard and ignition problem in the County. The overall goal of this plan is to reduce costs and losses from wildland fire in Tuolumne County by protecting assets at risk through focused prefire management prescriptions, enhancement of strategic fire defense systems and improved initial attack success.



The Emergency Services Plan for Tuolumne County describes the organizational response to typical emergency situations encountered in Tuolumne County. A Wildland Fire Plan is included as Annex G of that plan. The purpose of the Wildland Fire Plan is to outline the response organization, command authority, responsibilities, functions and interactions required to mitigate the damaging effects of a large scale or major wildland fire impacting the County. The Wildland Fire Plan is designed to unify agencies responding to a wildland fire under the Incident Command System (ICS) to best utilize resources and most effectively minimize damage to life and property caused by the event.

Structural fire protection is provided to the unincorporated area of the County by providing a cooperative fire protection services approach. Currently CAL FIRE provides administrative and operational services through a fire protection agreement, to the County of Tuolumne, the Jamestown Fire Protection District and the Groveland Community Services District. The remaining local fire agencies in the County, including the Tuolumne Fire District, Columbia Fire Protection District, Mi-Wuk Sugar Pine Fire Protection District, Strawberry Fire Protection District and the Twain Harte Community Services District, play a cooperative role in the fire protection services of the County. However, fire protection needs within the County are continuing to grow and change as the population base within the County changes. In order to provide appropriate levels of fire suppression services within the County, it may become necessary to assess capacity at the current agencies that provide fire suppression services in response to the growing and changing fire suppression needs within the County.

The Tuolumne County Fire Department (TCFD) Service Level Stabilization Plan was adopted in 1992. The Stabilization Plan was designed to address the fire protection needs of the area served by TCFD. It is a general planning document for development of TCFD through acquisition of fire stations, apparatus and equipment and the provision of personnel and support services. The Plan centers 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 the most cost effective method of delivering high quality fire protection where life, property, and valuable natural resources are at risk. Such a system would allow coordination of fire prevention, protection, and suppression strategies; insuring that both fire starts and the losses associated with fire are minimized.

The Fire Protection Section of the Safety Element insures that impacts on fire protection services resulting from County development will be addressed through the land use planning process. Programs are included which require that fire protection measures be incorporated into new development.

The Tuolumne County Office of Emergency Services (OES) is staffed by the County Administrator's Office. The local OES manages disaster preparedness and training, and manages the response of county resources to disasters. The office maintains emergency response plans required by State and Federal regulations, as well as emergency plans for major developments and facilities located within Tuolumne County.

Chapter 2.40 of the Tuolumne County Ordinance Code addresses emergency services within Tuolumne County. The Chapter designates the Director of Emergency Services, the Assistant Director of Emergency Services, and the Emergency Services Coordinator for the County. The Chapter also establishes the Tuolumne County Operational Area Committee whose mission is to manage a multi-agency disaster response and recovery operation for the



Tuolumne County Operational Area. The Tuolumne County Emergency Operations Plan (EOP) was updated and approved by the Board of Supervisors in 2012.

Currently, emergency medical services (EMS) are provided to the citizens and visitors of Tuolumne County by the Tuolumne County Ambulance Service, by private air ambulance services and by authorized first response providers. The Tuolumne County Fire Department and participating fire protection districts provide first responder medical aid in cases of emergency. The County's ambulance system is operated by the Tuolumne County Human Services Agency. Air ambulance services are provided to the region by private contractors.

The Tuolumne County Search and Rescue Team is a volunteer reserve component of the Sheriff's Department. The Search and Rescue Team performs over 100 calls per year and is one of the five most active search and rescue teams in the State. The Team has developed expertise in search management, search for lost persons, underwater rescue, swift water rescue, technical rescue, underground rescue, aircraft search, mounted search, medical assistance, helicopter rescue, canine rescue unit, and Nordic search. The Search and Rescue Team receives minimal funding from the Sheriff's Department budget each year. However, the costs of maintaining, replacing, and upgrading equipment continue to escalate. The costs associated with training continue to increase as well.

Sonora Regional Medical Center, owned and operated by Adventist Health, is the local hospital providing medical care to the citizens of Tuolumne County. The County Health Department is charged with coordinating the County's response to public health pandemics.

C. HAZARDOUS MATERIALS AND WASTE

Pursuant to Section 25135 et seq. of the California Health and Safety Code, Tuolumne County has prepared a Comprehensive Hazardous Waste Management Plan. The Plan was certified by the Tuolumne County Board of Supervisors on January 31, 1989.

The Tuolumne County Comprehensive Hazardous Waste Management Plan identifies the users of hazardous materials and the hazardous waste producers within the County and the flow of wastes produced. The Plan identifies methods of handling hazardous wastes both on and off site. The Plan further establishes criteria to insure that safe, effective, and economical facilities for the management of hazardous wastes will be available when they are needed, and that these facilities are of the type, and are operated in a manner, which protects public health and the environment.

Household hazardous waste results from products purchased by the general public for household use which may pose a hazard to human health or the environment. Section 41510 of the California Public Resources Code requires each County to adopt a Household Hazardous Waste Element (HHWE) for inclusion into the County Integrated Waste Management Plan which identifies a program for the safe collection, recycling, treatment and disposal of household hazardous waste.

On February 11, 1992, the Tuolumne County Board of Supervisors adopted the Multi-jurisdictional Household Hazardous Waste Element for the unincorporated area of Tuolumne County. The Sonora City Council did the same for the City of Sonora. The goals of the HHWE are to reduce the amount of household hazardous waste generated within Tuolumne County through reuse and recycling, divert household hazardous waste from landfills, promote alternatives to toxic household products, and educate the public regarding household hazardous waste management.



Chapter 10

HEALTHY COMMUNITIES

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A. INTRODUCTION

The health and well-being of Tuolumne County residents are fundamental to our quality of life and economic vitality. Health starts in our homes, schools, worksites and neighborhoods. It is in these places where we can find opportunities to improve health, by ensuring that everyone has nourishing food, safe places to walk, bike, and be active, and clean air indoors and out. The idea that health happens where we live, work and play is embodied by a “health in all policies” approach, which promotes better health for everyone by improving access to healthy environments throughout the community.

The increased prevalence of chronic diseases in the United States, including diabetes, obesity, heart disease and respiratory illnesses has been widely recognized as one of the major social and economic challenges. Recent research has found that people’s environments – where they live and work, how they travel, what they eat and where and when they play, socialize, and are physically active – have a major impact on their health and well-being. In response to these issues, the General Plan includes this Healthy Communities Element, which provides policy direction to promote opportunities for the improved health of Tuolumne County residents.

Although conventional planning practices, such as separating residential and commercial uses, building low density areas, constructing streets primarily for automobiles, and not providing adequate transportation choices, are not the single cause of chronic health problems in the United States, there is increasing documentation that they are often a contributing factor. Research indicates that auto-oriented, low density, single use places – as well as places underserved by parks and active recreation facilities – discourage *physical activity* and therefore contribute to an increased risk of heart disease, cancer and stroke representing three out of the four top causes of death in Tuolumne County. Poor nutrition, which can be exacerbated by land use decisions that limit people’s *access to healthy food*, also contribute to these chronic diseases. Physical inactivity and poor nutrition are primary risk factors for obesity (the fastest-growing disease in California, along with diabetes), and obesity in turn increases the risk of a myriad of chronic diseases. Conversely, research shows that higher density, walkable urban places, transportation choices, and access to recreation all increase physical activity, and thus promote good health.

Land uses and urban form have other health impacts as well. Emissions from transportation sources are strongly linked with respiratory diseases, while automobile accidents consistently kill over 40,000 Americans each year. Motor vehicle related fatality rates in Tuolumne County are higher than the State average. Well planned



communities can decrease the risk of falls and pedestrian injuries, and with twice the percentage of people over 60 years of age in California, Tuolumne County has a higher than average rate of serious injury due to falls. Land use decisions also impact people's access to grocery stores, farmers markets, community gardens and other sources of nutritious foods and healthcare. Poor mental health is associated with a number of factors related to how cities are designed, including long commute times, exposure to crime, lack of transportation choices and lack of access to public spaces.

Tuolumne County is committed to promoting the health and well-being of all its residents. We strive to be an active, inclusive, and responsive county, where healthy choices are encouraged rather than discouraged by the environment we build. Achieving this vision requires acknowledging previously ignored links between built environments and health, particularly the influence that patterns of land use, density, transportation strategies, and street design have on chronic diseases and health disparities.

This Healthy Communities Element focuses on three major intersections of public health and planning in Tuolumne County:

- **Physical Activity:** Promoting physical activity by implementing Safe Routes to School policies and programs so that children, their caretakers and working residents can safely and conveniently get to and from school and work by engaging in active transportation;
- **Access to Healthy Foods and Nutrition:** Promoting healthy eating by developing policies to increase access to healthier, lower sugar alternative beverages and food; and
- **Smoke Free Multi Unit Housing:** Promoting tobacco-free living by adopting policies regarding smoke-free multi-unit housing and community environments.

B. PHYSICAL ACTIVITY

Many transportation corridors, such as roadways and highways, throughout the County lack sidewalks, bicycle lanes and crosswalks within the urban development boundaries and are often difficult and dangerous for pedestrians, thus discouraging physical activity. Residents' ability to bicycle, walk and exercise for recreation is also limited by a relative lack of parks and recreation facilities, a cohesive bicycle network, and the distance residents must travel to reach such facilities.

The development patterns of the County – how the land uses are arranged, the urban form is constructed, and the streets designed – are critical to the health and well-being of residents because they affect physical activity. Healthy land use patterns can be achieved within urban development boundaries by encouraging infill, focusing development in mixed use districts and along major transit corridors, constructing a diverse mix of uses throughout the County, promoting joint use opportunities and encouraging land use patterns that promote walking, bicycling and transit use.

In 1969, approximately 41 percent of children walked or bicycled to school, including almost 90 percent of children living within one mile of school. Today, 22 percent of California's rural school age children reported walking, biking or skating to school, but the numbers are even lower in Tuolumne County, where fewer than 15 percent of children report doing so.

Engaging in active transportation when traveling to and from school can be a convenient way for students and their caretakers to be more physically active every day. Safe Routes to School programs and policies make it safer and more convenient for students and their caretakers to actively commute to and from school. Not surprisingly,



California was the first state in the country to pass a law establishing Safe Routes to School programs and it continues to be a leader in this arena.

Safe Routes to School programs and policies help students, their caretakers, communities, and the environment in four significant ways:

1. **Health:** Walking, bicycling, and other forms of active transportation not only save costs related to busing students, but they also allow students to engage in physical activity, which reduces the risk of obesity and related chronic diseases such as diabetes, heart disease, stroke, and certain cancers.
2. **Learning:** When children exercise before school, they arrive focused and ready to learn. By adopting Safe Routes to School programs and policies, schools can increase students' health and readiness to learn without taking time away from existing school-day activities or placing additional burdens on teachers. Healthier children also miss fewer days of school.
3. **Environment:** Replacing motor vehicle trips with active transportation reduces the carbon footprint and results in fewer greenhouse gas emissions, less noise pollution, and better air quality, which is of particular benefit to students with asthma.
4. **Community and Safety:** 10 to 25 percent of morning rush-hour traffic is attributable to families driving their children to school. An increase in active transportation to and from school reduces traffic congestion and risk of involvement in a motor vehicle accident. In addition, walking and bicycling increases community interaction and sense of place.

Driving is likely to remain the main form of transportation in Tuolumne County, particularly in rural areas. However, the County is striving to create a balanced, multi-modal transportation system, which gives people an opportunity to be physically active in a safe environment as well as provide them choices about how to get to their destinations, thereby further increasing their physical activity and reducing pollution.

C. ACCESS TO HEALTHY FOODS AND NUTRITION

Sugar-sweetened beverages, such as non-diet soda, sports drinks, energy drinks, and sweet teas, account for the growing proportion of calories consumed by children and adults. These sugar-sweetened beverages offer little or no nutritional value, but contain large quantities of sugar. Sugar in liquid form accounts for almost half the total added-sugar intake in the U.S. population, and sugar-sweetened beverages displace healthier, more nutrient-dense beverages like milk, 100% fruit juice, and water. Soft drinks now contribute more added sugars to the diet than any other single type of food or beverage. Children are consuming 10 to 15 percent of their daily caloric intake from sugar-sweetened beverages, and many times the recommended amount of refined sugar per day as a result. Americans and Tuolumne County residents alike who are at greatest risk for obesity, including African-Americans, Mexican-Americans, and lower education populations, have the highest intake of sugar-sweetened beverages.

Numerous scientific studies demonstrate the link between consumption of sugar-sweetened beverages and obesity. A recent meta-analysis examining 88 cross-sectional and prospective studies that explored the relationship between soft drink intake and nutrition or health outcomes found that higher intake of soft drinks was associated with greater caloric intake, higher body weight, lower intake of other nutrients, and worse health outcomes. Subsequent analyses from a large trial confirmed these findings, namely, greater weight loss as sugar-sweetened beverage intake decreased. Additionally, consumption of sugar-sweetened beverages has been linked



with an increase in blood pressure. Research has also shown that reducing sugar-sweetened beverage consumption by one serving per day is associated with a drop in blood pressure.

A healthy diet is a critical component to a healthy life. Some residents in Tuolumne County do not have easy access to local, affordable healthy food outlets. A balanced retail food environment enables consumers to access healthy foods and make informed decisions about the meals that would be best for them.

In addition to the traditional food retail outlets, urban farm- and garden-scale agriculture has benefits for public health, including encouraging people to consume fresh products and to be active. Urban farm and garden agriculture also contribute to the creation of safe, healthy, and green environments in neighborhoods and the reuse of otherwise vacant or underutilized land.

D. SMOKE FREE MULTI UNIT HOUSING

Secondhand smoke is a leading cause of death and disease in the United States. The U.S. Surgeon General has concluded that there is no risk-free level of exposure to secondhand smoke. The California Air Resources Board placed secondhand smoke in the same category as the most toxic automotive and industrial air pollutants by categorizing it as a toxic air contaminant for which there is no safe level of exposure. In addition, the California Environmental Protection Agency included secondhand smoke on the Proposition 65 list of chemicals known to the state of California to cause cancer, birth defects, and other reproductive harm.

A county-wide survey of tobacco use was coordinated in October 2012 by the Tuolumne County Health Department as part of the local Community Transformation Initiative effort, providing reliable data pertaining to rates of tobacco use, secondhand smoke exposure and interest in tobacco control measures by residents in local multi-unit housing. The results include the following findings:

- 26 percent of respondents smoke cigarettes (one of the highest rates in the state);
- 58 percent of local households with children have at least one member of the household using some form of tobacco;
- 40 percent of those living in apartment or condominium complexes report frequent or occasional exposure to secondhand tobacco smoke; and
- 57 percent of respondents support laws limiting smoking in outdoor common areas of apartment buildings, such as entryways, swimming pools and courtyards.

The Surgeon General has concluded that eliminating smoking in indoor spaces is the only way to fully protect nonsmokers from secondhand smoke exposure and that separating smokers in the same building from nonsmokers, cleaning the air, and ventilating buildings cannot completely prevent secondhand smoke exposure. Moreover, studies have found that nonsmokers who live in multi-unit dwellings can be exposed to neighbors' secondhand smoke when secondhand smoke seeps under doorways, through utility conduits and through wall cracks. Persons living in apartments near smokers can be exposed to elevated pollution levels for 24 hours a day, and at times, the particulate matter exposure can exceed the U.S. Environmental Protection Agency's 24-Hour Health Based Standard. Thus, nonsmokers are at-risk of exposure to secondhand smoke even when secondhand smoke emanates from adjacent units.

Several studies have shown that prohibitions on indoor smoking have been effective in reducing exposure to secondhand smoke and reducing respiratory illnesses. A study by the International Agency for Research on Cancer (IARC) found that bans on indoor smoking reduced the health effects of secondhand smoke. The IARC reviewed



several studies on smoking bans in commercial environments, such as offices and eating establishments, and such studies found that smoke-free work environments lead to a substantial decline in exposure to Environmental Tobacco Smoke (ETS), reduced social inequalities in ETS exposure at work, and appeared to cause a decline in heart disease morbidity in workers. Longer term studies are needed to determine the effect on lung cancer, but the decline in exposure to ETS has led to short term reductions in acute respiratory illnesses. Moreover, smoke-free environments contribute to reductions in smoking behavior, especially when a home is smoke-free.

California law prohibits smoking in virtually all indoor places, such as all places of employment, reflecting the state policy to protect against the dangers of exposure to secondhand smoke. California law declares that anything which is injurious to health or obstructs the free use of property, so as to interfere with the comfortable enjoyment of life or property, is a nuisance. Moreover, local governments are legally required to “take measures necessary to preserve and protect the public health,” including the adoption of any ordinances, regulations or orders for such purpose. Accordingly, local governments have broad latitude to declare nuisances and are not constrained by prior definitions of nuisance. A local ordinance that requires residential rental agreements to prohibit the smoking of tobacco products within rental units is not prohibited by California law. While some have argued that smoking indoors is a right of personal freedom, the courts have held that there is no Constitutional right to smoke.



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Chapter 11

PARKS AND RECREATION

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A. INTRODUCTION

Parks provide for friendly social contact by furnishing a gathering place for families, co-workers, retired persons, parents with young children and many others. The health benefits of active recreation are well known. The provision of adequate, accessible recreational facilities is important to the social, psychological and physical well-being of its residents, and provides economic opportunities for business. In addition, parks are a place for community gatherings that enhance civic pride while preserving green spaces which provide a visual contrast with more urbanized surroundings.

Within Tuolumne County are a myriad of recreational opportunities for the public provided by:

- Yosemite National Park
- Stanislaus National Forest
- Bureau of Reclamation
- Bureau of Land Management
- California State Parks and Recreation
- California Department of Fish & Wildlife
- City of Sonora
- Don Pedro Recreation Agency
- community based recreation and park districts
- community services districts
- School Districts
- County of Tuolumne

B. PARKS

As an entity, Tuolumne County itself operates and maintains over 341 acres of parks. The Tuolumne County Recreation Master Plan adopted in 2002 describes the parks and recreation facilities operated by the County. Table 11.1 below lists each of the park facilities and identifies the primary amenities and size of each facilities operated by the County. The locations of these facilities and properties are identified in Figure 11.1. It is



important to note that the Tuolumne County Recreation Master Plan includes tables and maps of many recreational sites and trails, including those not operated by the County.

Based upon the analysis in the 2002 Tuolumne County Recreation Master Plan, four new parks are proposed to be developed and two existing parks are proposed to be significantly expanded, resulting in an additional 336 acres of new parkland (see Table 6.2.1 of said plan).

In addition, human-made recreational attractions include restored historic hotels, golf courses, numerous gourmet restaurants, wineries, train rides, casino, five museums, two state historic parks, live theater, and bed-and-breakfasts.

TABLE 11.1: COUNTY PARKS IDENTIFIED IN 2002 RECREATION MASTER PLAN		
County Parks¹	Amenities	Acres
Courthouse Park	Benches, picnic areas	0.25
Rocca Park	Bandstand, children's playground, restrooms	0.5
Library, Skateboard Park, and Heaven for Children Playground	Skateboard park, picnic/barbeque facilities, children's playground	5
Standard Park	Softball/soccer fields, children's play area, concession stand, restrooms	11
Patterson Field	Baseball field, picnic/barbeque facilities, concessions stand, restroom	3
Twain Harte Swimming Pool	Swimming pool, restroom,	0.5
Pioneer Park	Baseball field, concession stand, bleachers, restroom, children's playground, picnic facilities	20
Tuolumne Memorial Hall Park	Bandstand, picnic tables, swimming pool, sports field, and playground	5
Lake Tulloch Marina (long-term lease on land owned CDFW)	130 campsites, restaurant/store, marina, boat launch, day-use facilities	296
Total	--	341.25
Notes: ¹ Jamestown Youth Center and the Golden Pond/Jamestown Mine Site are not included on this list. Jamestown Youth Center would not generally be considered a "park" or public recreation facility. The Golden Pond/Jamestown Mine Site is not currently developed as a park or recreation facility although it does provide potential future opportunity as a major park in the County. Source: Compiled by Ascent from Tuolumne County 2002		

C. TRAILS

Tuolumne County has and continues to develop a regional trail system for use by pedestrians, bicyclists, hikers and equestrians, linking the County's major population centers with other local, state and federal recreational



facilities, significant open space areas, libraries, schools, neighborhoods, public facilities and other destination points.

Most existing bicycle paths and trails are primarily used for recreational purposes such as hiking, equestrian use or mountain biking and have been constructed by private volunteer efforts, within private subdivisions, or on public lands.

According to the 2000 Census, 665 people, or 3.3% of Tuolumne County's population biked or walked to work. Broken down further, 585, or 2.9% of people walked to work. This is the same as the state average. As far as bicycling, 80 people, or 0.4% of the population bicycle to work, which is the national average. These numbers include all of Tuolumne County, including the City of Sonora.

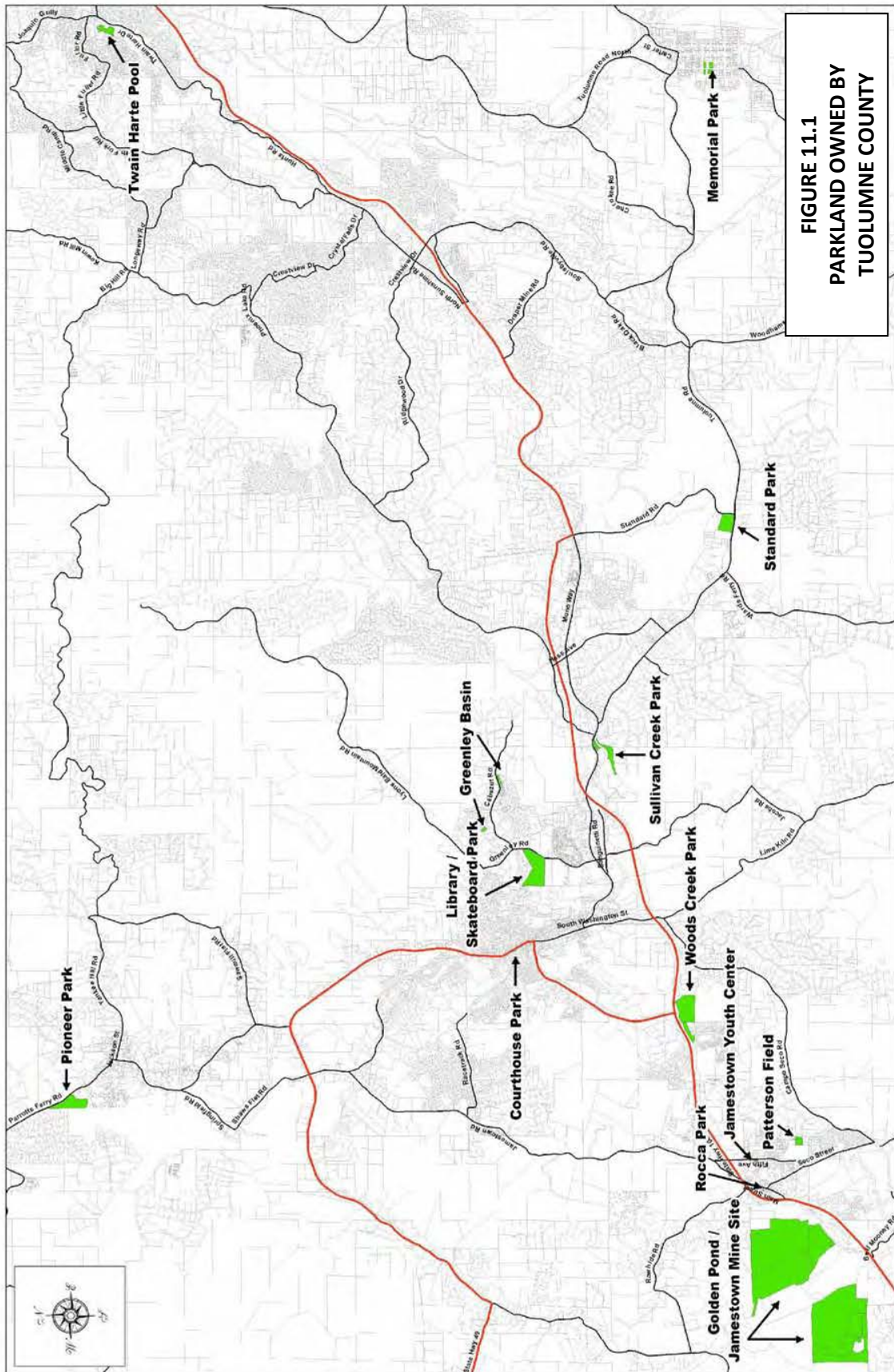
The Tuolumne County Recreation Master Plan and Tuolumne County Bikeways and Trails Plan are used to guide trail planning and development. The purpose of the Tuolumne County Bikeways and Trails Plan (220) is to provide a comprehensive long-range view for the development of an extensive regional bikeway, walking trails, and equestrian trails network that connects the City of Sonora and the unincorporated communities throughout the County to provide non-motorized transportation alternatives. Appendix A of the Bikeways and Trails Plan includes existing/proposed trail system maps for the following areas:

- Community of Columbia
- Community of Groveland
- Community of Jamestown
- Community of Tuolumne
- Community of Twain Harte
- East Sonora Area
- Rawhide Road/Jamestown Road Area
- High Country Area

Additionally, Figure 11.2 of this Technical Background Report is an index map of Tuolumne County Trails.



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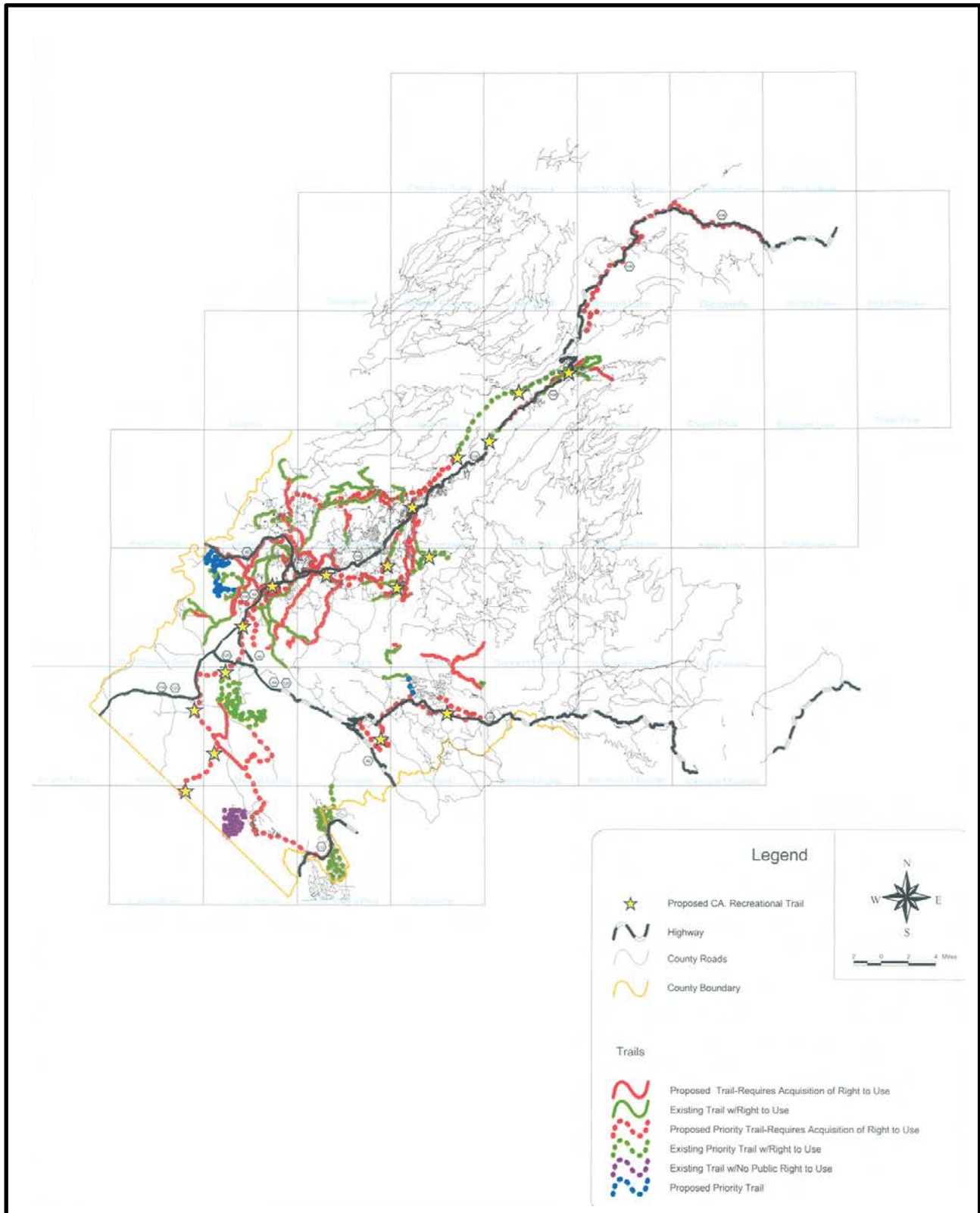


FIGURE 11.2: TRAIL NETWORK



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Chapter 12

EDUCATION AND LIBRARIES

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- The Tuolumne County Vision

A. INTRODUCTION

Tuolumne County offers a wide variety of educational opportunities. For the very young, preschools are available including cooperative parent nursery schools, Headstart, and Tinytots. For school aged children, a variety of private schools and home-schooling alternatives add to the public school systems. The University of California Cooperative Extension/Farm Advisors office cooperates with Senior Youth Partnership in after school day care programs (PM Clubs) for children of working parents. Columbia College is open to adults of all ages, with a wide variety of class offerings including standard community college programs. Tuolumne County's citizens of any age can avail themselves of these educational opportunities.

B. SCHOOLS

The eleven school districts within Tuolumne County consist of two high school districts, eight elementary school districts, and one unified school district, which includes both elementary and high schools (Figure 12.1). Approximately 5,907 students attended the first day of classes for the 2017-18 school year at public schools within this County. Table 12.1 below shows each school by name, grade levels served, 2013–2014 enrollment and the district in which it is located.

There are four charter schools within Tuolumne County: (1) California Virtual Academy at Jamestown; (2) Connections Visual and Performing Arts Academy; (3) Gold Rush Charter; and (4) Foothill Leadership Academy. Enrollments at private schools operating within Tuolumne County range in size from a single student up to 155 students. The two largest are the Mother Lode Christian School, located in Tuolumne, and the Sierra Waldorf School, located in the Rawhide Valley, near Jamestown. The small private schools, such as the ones with a single student, are home-schools. Since many home-schools are not registered as a private school, the actual number of students being taught at home or informally in small groups is unknown. 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. The timely provision of school facilities is essential to creating a viable community. Residential development should, therefore, be tied to the provision of adequate school facilities.



TABLE 12.1: SCHOOLS WITHIN TUOLUMNE COUNTY AND 2017-2018 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
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 School	K-8	254
Tuolumne County	Foothill Leadership Academy	K-8	133
Total			5,907
Source: California Department of Education and Student Accountability Report Card website			



FIGURE 12.1: SCHOOL DISTRICTS



C. 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, 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. Branch libraries are located in Tuolumne, Twain Harte, and Groveland. A mobile Bookmobile is also used to visit the communities of Columbia, East Sonora, Lake Don Pedro, Strawberry, Soulsbyville, and Crystal Falls.

The purpose of the Library Services Section of this Element is to provide policy guidance for continuation of library services at an acceptable level for the public's use and edification, and identify funding sources to enable growth or expansion of library facilities.



Chapter 13

CULTURAL RESOURCES

A place where all citizens enjoy opportunities to thrive in a safe, healthy, and productive community.
- The Tuolumne County Vision

A. INTRODUCTION

Cultural resources include prehistoric resources, historic resources, Native American resources, and paleontological resources:

- Prehistoric resources represent the remains of human occupation prior to European settlement.
- Historic resources represent remains after European settlement and may be part of a “built environment,” including man-made structures used for habitation, work, recreation, education and religious worship.
- Native American resources include ethnographic elements pertaining to Native American issues and values.
- Paleontological resources include fossils, pollen, and spores that provide evidence of prehistoric ecology and evolution.

No community can hope to understand its present or plan for its future if it fails to recognize the importance of its past. The presence of the past endows a community with a sense of place and a feeling of belonging to all its citizens. The tangible presence of cultural resource sites that speak of other people and other times is a form of history that enables us to chart some of the paths from the present to the future. By tracing its history, a community gains a clear sense of how it achieved its present form and character. More importantly, a community can use this knowledge to determine how it will continue to evolve. For these reasons, efforts directed at identifying, recording and preserving Tuolumne County's cultural resources, our tangible links to the past, should be undertaken to plan wisely for our future. And, as we move into the future, cultural resources preservation will continue to provide us with economic, social, and cultural benefits which enhance our quality of life and contribute to California's cultural continuum.

The State of California recognized this need to acknowledge the past in planning for the future by authorizing Historic Preservation Elements as part of General Plans (Government Code Section 65303) to include actions and programs for the "identification, establishment and protection of sites and structures of architectural, historical, archaeological or cultural significance." The preamble of the California Environmental Quality Act (CEQA) echoes that policy in Section 21001 which states that, "The Legislature further finds and declares that it is the policy of the state to: take all action necessary to provide the people of this state with...enjoyment of...historic environmental qualities" and to "preserve for future generations...examples of the major periods of California history."



By assuring that the unique character and special sense of place that Tuolumne County possesses will survive through implementation of a cultural resources management program, the public is given a reason to build its future on the past. This cultural resources management element invites citizens to help protect and enhance those aspects that first attracted them or keep them here including the historic character and distinct charm of Tuolumne County. A tie with the past establishes continuity and builds roots. Taking part in preserving the past builds pride and creates good feelings about the future. In the end, everyone benefits.

B. PREHISTORIC RESOURCES

Prehistoric resources represent the remains of human occupation prior to European settlement. Central Sierra Me-Wuk villages were usually located on ridges near a major spring or drainage confluence below the heavy snow line (about 3,500–4,000 feet in elevation). Summer brought movement into higher elevations where seasonal camps were established convenient to summer gathering and hunting. Tuolumne County's lower elevations were known as an area used intensely for gathering. There were numerous temporary camps that existed for hunting, fishing, and gathering locales throughout the County. It is estimated that there were 35 pre-1848 villages in this part of the Sierra Nevada. This number of villages indicates that the County was a significant residential and resource procurement area for the Central Sierra Me-Wuk.

Few pre-1848 accounts of historic excursions into Tuolumne County have survived. Gabriel Moraga and his fellow explorers are the earliest known non-Indians to venture into what became Tuolumne County. Little information remains about any historic settlements or other resources from this era, or remains of any settlements of the early Sonoran miners. Historic activity began intensely soon after the widely publicized 1848 discovery of gold. This discovery forever changed the face of Tuolumne County's physical and cultural landscape.

C. HISTORIC RESOURCES

Historic resources represent remains after European settlement and may be part of a "built environment," including man-made structures used for habitation, work, recreation, education and religious worship. Non-Indian intrusions into the Central Sierra Me-Wuk territory probably occurred sporadically prior to the Gold Rush of 1848. By the Gold Rush period, valley tribes had been seriously reduced in numbers and the foothills were affected by movement of surviving Indian refugees into their areas. Former traditions were completely disrupted and settlement patterns were altered due to high mortality and the encroachment of white settlers on the land. Villages were abandoned or moved because of the decreased number of residents or because of forced removal by non-Indians. During the post-Gold Rush period, villages contracted and consolidated.

It is believed that gold was discovered in Tuolumne County in 1848 by Benjamin F. Wood and his party in Jamestown. However, there is conflicting information stating that gold was discovered on Mormon Creek near Tuttletown by a group of Mormons before the arrival of Mr. Wood in the County. Miners invaded the area, developed water systems, and constructed settlements in the rich mining areas. The most visible remnants of the County's past are found in its Gold Rush Era buildings and artifacts dating from 1848 (Tuolumne County 2004). In the early 1850s, Columbia, known as "The Gem of the Southern Mines," was established as a "tent and shanty" town. What started as home to a handful of miners, grew into a community of several thousand with more than 500 buildings and over 150 businesses serving Columbia and nearby mining camps. The County has identified the townsite at Columbia State Historic Park as an outstanding historic resource that demonstrates life during the California Gold Rush.



When the easily mined gold gave out, Jamestown remained a trade and supply depot for mining higher in the foothills, with a prime location on the roads from the Central Valley. Due to the depletion of gold fields and six major fires between 1854 and 1866, Columbia's population dwindled from more than 10,000 to less than 500. By the mid-1860s the placer gold deposits were exhausted, and the technology for extracting deep veins of gold was not yet well-developed. The mining industry leveled off in Tuolumne County, and many mining families moved to other settlements outside the County. During this time, between the years 1860 and 1870, the County's population decreased by nearly 50 percent.

From the late 1880s to World War I, advancements in mining technology and an infusion of foreign capital produced a second Gold Rush in Tuolumne County. Renewed mining efforts allowed for the influx of settlers into Sonora and Jamestown. Other locations within the booming towns were reopened with investment capital and large modern stamp mills were erected. Mining was once again a profitable venture in Tuolumne County and its supporting industries developed closely behind. A large increase of assessed valuation allowed the County to construct new public services and generally stimulate County services. Businesses and commerce prospered, agriculture became a major local industry, many homes were built to house the increased population, and whole communities were established or enlarged.

The timber industry emerged in response to a need for timbers to support the hard rock mines, to build stamp mills and to construct buildings in the mining camps. By 1900 the industry developed into a major industrial base in the County. It provided the momentum for growth and development of the Sierra, Sugar Pine, West Side and Cherry Valley railways. The industry also created hundreds of jobs for loggers and other professions closely intertwined with the timber industry. The agriculture industry was also initially created to support the mining operations and its workforce. Railroads for logging, freight and passenger services created more economic opportunities and made it possible for the expansion of the agriculture industry. The Sierra Railroad was constructed in 1897 and hauled machinery and supplies to the mines, ore, lumber, a variety of agricultural products, passengers and merchandise for stores and businesses.

The driving force of tourism in the County was the construction of the railroads from Stockton to Milton in 1871. The railroad greatly increased tourism by reducing traveling time while increasing traveling comfort. The influx of tourism was seasonal and after the completion of the Sierra Railway, many locations in the County became destinations for vacationers. As the demand for tourist facilities increased, recreational home subdivisions began to be developed in the hills east of Sonora in the 1920's. There was not a great demand for full public services until the 1980's when the trend began for the conversion of these vacation homes into year-round residences.

By World War I most of the mines in Tuolumne County were once again inactive and many people moved to work in war-related industries in the San Francisco Bay Area. The arrival of automobiles and truck transportation shifted the balance of imports and exports in the agriculture industry. Many agricultural products and manufactured items were imported instead of being produced locally. The Great Depression which began in 1929 hindered the productivity of local industry including agriculture and timber. Due to the increased price of gold and low operating costs during the Depression, a small mining boom occurred again during the mid to late 1930s. However, the start of World War II effectively put an end to any major reopening. All mines were then ordered closed in 1942 by the federal government, and thus ended the historic presence of mining operations in the County.

Table 13.1 presents historical resources in Tuolumne County. Included in the table are sites listed on the National Register of Historic Places (NRHP) and the Tuolumne County Register of Cultural Resources and designated as California State Historic Landmarks. Due to the sensitivity of many prehistoric, ethnohistoric, and historic



archaeological sites, the resources listed in the following table include only those that are available for access by the general public. In Tuolumne County, there are 34 NRHP listings, 12 listings on the County Register, and 20 California Historical Landmarks. In honor of its historic resources, the federal government has named Tuolumne County a Preserve America Community, which recognizes the County's efforts to protect and celebrate its heritage, use historic assets for economic development and community revitalization, and encourage people to experience and appreciate local historic resources.

Table 13.1 presents historical resources in Tuolumne County. Included in the table are sites listed on the National Register of Historic Places (NRHP) and the Tuolumne County Register of Cultural Resources and designated as California State Historic Landmarks. Due to the sensitivity of many prehistoric, ethnohistoric, and historic archaeological sites, the resources listed in the following table include only those that are available for access by the general public. In honor of its historic resources, the federal government has named Tuolumne County a Preserve America Community, which recognizes the County's efforts to protect and celebrate its heritage, use historic assets for economic development and community revitalization, and encourage people to experience and appreciate local historic resources.

TABLE 13.1: TUOLUMNE COUNTY HISTORICAL RESOURCES				
Location	Resource Name	NRHP	State Landmark	TC Register
Big Oak Flat	Big Oak Flat		X	
Big Oak Flat	Gamble Building	X		
Chinese Camp	Chinese Camp		X	
Chinese Camp area	Jacksonville		X	
Chinese Camp area	Montezuma		X	
Chinese Camp	Wells Fargo Express Company Building		X	
Columbia	1925 Craftsman Bungalow and 1940 Garage			X
Columbia	Columbia State Historic Park		X	
Columbia area	Parrotts Ferry		X	
Columbia area	Sawmill Flat		X	
Columbia area	Shaw's Flat		X	
Columbia area	Springfield		X	
Dardenelle	Baker Highway Maintenance Station	X		
East Sonora	Belli Ranch House			X
East Sonora	Sullivan Creek Park (Elsey's Pool)			X
Groveland area	Second Garrote		X	
Groveland	Groveland		X	
Groveland	Groveland Hotel	X		
Groveland	Hotel Charlotte	X		



TABLE 13.1: TUOLUMNE COUNTY HISTORICAL RESOURCES

Location	Resource Name	NRHP	State Landmark	TC Register
Groveland	Watts & Tannahill Company Store	X		
Jamestown	Emporium	X		
Jamestown	Jamestown		X	
Jamestown	Jamestown Community Hall (Old Justice Court)			X
Jamestown	Ramirez-Preston Building			X
Long Barn	Quail Site	X		
Pinecrest area	Leighton Encampment	X		
Soulsbyville	Gessford Home			X
Soulsbyville	Soulsbyville		X	
Strawberry	Chinaman Mortar Site	X		
Strawberry	Cooper Cabin	X		
Strawberry	Old Strawberry Road Bridge			X
Strawberry	Stanislaus Branch, California Forest and Range Experiment Station	X		
Sugar Pine	Sonora-Mono Road		X	
Tuolumne area	Cherokee		X	
Tuolumne	Dungan House			X
Tuolumne	Niagara Camp	X		
Tuolumne	Summersville (Tuolumne)		X	
Tuolumne	Superintendent's House			X
Tuolumne	Veterans Memorial Hall			X
Tuolumne	West Side Memorial Park			X
Tuttletown	Ewert/Aguire/Jackson Property (Tuttletown Stage Stop)			X
Tuttletown area	Mark Twain Cabin		X	
Tuttletown	Tuttletown		X	
Yosemite National Park	Frog Creek Cabin	X		
Yosemite National Park	Glen Aulin High Sierra Camp	X		
Yosemite National Park	Lake Vernon Snow Survey Shelter	X		



TABLE 13.1: TUOLUMNE COUNTY HISTORICAL RESOURCES

Location	Resource Name	NRHP	State Landmark	TC Register
Yosemite National Park	Sachse Spring Snow Survey Shelter	X		
Yosemite	Great Sierra Wagon Road	X		
Notes: NRHP = National Register of Historic Places; TC Register = Tuolumne County Register of Cultural Resources. Sources: National Park Service 2018; California Office of Historic Preservation 2018; Tuolumne County Register of Cultural Resources 2010.				

D. TRIBAL CULTURAL RESOURCES

Native American Tribes culturally affiliated with Tuolumne County include: Buena Vista Rancheria, Chicken Ranch Rancheria of Me-Wuk, and the Tuolumne Band of Me-Wuk. Native American resources include ethnographic elements pertaining to Native American issues and values. Due to the sensitive nature of tribal cultural resources, no site descriptions or graphics are presented in the General Plan documents. Additional information about tribal cultural resources is presented in the General Plan DEIR.

E. PALEONTOLOGICAL RESOURCES

Paleontological resources include fossils, pollen, and spores that provide evidence of prehistoric ecology and evolution. Based on geologic mapping, the majority of the County is not considered sensitive for paleontological resources. Paleozoic marine rocks occur in the western portion of the County and may contain fossils of marine invertebrates. A pocket of Plio-Pleistocene and Pliocene loose consolidated deposits also occurs along State Route 108 to southwest of Jamestown and northwest of Chinese Camp. This area may contain evidence of Pleistocene-era large mammals. Records of paleontological finds maintained by the University of California Museum of Paleontology (UCMP) state that there are 72 localities at which fossil remains have been found in Tuolumne County. These occur primarily in the Mehrten geologic formations.

F. MANAGING TUOLUMNE COUNTY'S CULTURAL RESOURCES

Since the Tuolumne County Board of Supervisors adopted requirements for the County Register of Cultural Resources in July 1992, it has designated 17 properties on this register. The twelve properties that occur in the unincorporated County are listed in Table 13.1. Inclusion on the register qualifies properties to use the State Historical Building Code, to enter into a Mills Act Contract for qualifying rehabilitations and maintenance, and for alternative development standards. Additional tools are aids used by the County to regulate cultural resources, and include the following:

- Priority Classification System for Historic Buildings and Structures.
- Criteria for Conducting Cultural Resources Investigations.
- Process for Cultural Resources Investigations.

These tools are located in Chapter 13, the Cultural Resources Element of the General Plan.



Section D

The Tuolumne County Natural Environment





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Chapter 14

WATER SUPPLY

A place where all citizens enjoy opportunities to thrive in a safe, healthy, and productive community.
- The Tuolumne County Vision

A. INTRODUCTION

An adequate and high quality water supply is considered a basic need, and the use and quality of water has long been regulated by government. Since water moves easily across jurisdictional boundaries, much of the regulation is at the regional, state and federal levels. However, since cities and counties have legal authority over development and land use, they must consider the adequacy of water supplies and how development affects the quantity and quality of water available for other beneficial uses, such as domestic, agricultural, industrial, biological and wildlife. The long term adequacy of groundwater and surface water resources has become a major public concern in California. Water related issues include lowered groundwater levels, increased stormwater runoff, sediment and pollutants in runoff, the water needs of fish and wildlife, the rates of water usage, conservation methods, water storage limitations, the re-use of water and continuing changes in State and Federal regulations. Goals, Policies, and Implementation Programs regarding water related catastrophes, such as flooding and droughts, are discussed in the Natural Hazards Element.

B. RIVERS AND OTHER WATERS

Surface Water Resources - There are two main watersheds within the County: the Upper Stanislaus River Watershed and the Upper Tuolumne River Watershed.

- The Stanislaus River is an approximately 65-mile long waterway that flows from the Sierra Nevada mountains to the San Joaquin River in the eastern part of the Central Valley and is one of the largest tributaries of the San Joaquin River. The Stanislaus River Watershed covers an area of approximately 904 square miles. The river originates as North, Middle, and South Forks in Stanislaus National Forest in the Sierra Nevada Mountains. The confluence of the North and Middle Forks northeast of New Melones Lake forms the Stanislaus River proper. The South Fork joins the river within New Melones Lake. The North Fork forms the northwestern boundary of the County.
- The Tuolumne River watershed drains an area of approximately 1,533 square miles. Its headwaters originate in the high Sierra at the eastern edge of Tuolumne Meadows in Yosemite National Park, and continue through the park to Hetch Hetchy Valley, where the main branch is dammed by the 95 year-old O'Shaughnessy Dam, forming the Hetch Hetchy Reservoir. At the O'Shaughnessy Dam, approximately 33 percent of the river's flow is diverted to the San Francisco Bay Area, where it provides drinking water for nearly 2.5 million people.

These watersheds and the network of water features in the County are illustrated in Figure 14.1.



Groundwater Resources - The California Department of Water Resources (DWR) publishes Bulletin 118, which provides a detailed description of traditional groundwater basins in California. Such basins are characterized by loose, unconsolidated sediments or porous, permeable bedrock conditions. No such basin is identified by the DWR Bulletin in Tuolumne County (Tuolumne Utilities District 2011).

The County stretches from the foothills to the higher elevations of the Sierra Nevada mountains where the subsurface material consists primarily of impervious granitic and greenstone bedrock (more information on County geology can be found in Section 3.7), which generally produces a low or unpredictable groundwater yield. The general hydrogeology of Tuolumne County is typical of granitic mountainous terrain, where groundwater is controlled by the weathering and structure of the bedrock. The occurrence and flow of groundwater is significantly different in fractured bedrock conditions than in unconsolidated sediments (e.g., porous sands and gravels). In this type of hydrogeologic environment, the presence of groundwater and potential well capacities are dependent not only on geographic location and geology, but also on the number and size of fractures encountered where a well is drilled, the degree of connectivity between those fractures and other fractures, and the seasonal and annual recharge of the bedrock fracture network.

C. HARBORS AND FISHERIES

There are no harbors or fisheries in Tuolumne County

D. WATER RIGHTS

The California Constitution requires that water be used in a reasonable and beneficial manner and prohibits misuse and waste of water. All types of water rights are subject to this constitutional policy, and a State agency, the State Water Resources Control Board, is authorized to take action to prevent unreasonable uses of water. There are two principal types of surface water rights in California, riparian rights and appropriative rights.

Riparian Water Rights

A riparian water right allows a landowner bordering a watercourse to share the water flowing past their property with other riparian landowners. Riparian rights are not defined by California statutes but have been established by common law and court decisions. Permits or other government approvals are not required to exercise riparian rights. However, a permit from the Army Corps of Engineers or some other regulatory agency, or an agreement with the California Department of Fish and Wildlife, may be necessary to construct diversion facilities needed to exercise riparian or appropriative rights.

Riparian rights extend only to natural flow and do not apply to water imported into a stream system or water released from storage in an upstream reservoir. Riparian rights do not allow a water user to store water in a reservoir during the wet season for use during the dry season. In times of shortage, riparian rights are entitled to share the supply before any appropriators may divert water. The water from riparian rights can only be used on the riparian lands and cannot be transferred or exported for use on other properties or outside the watershed.

Riparian rights ordinarily cannot be lost through nonuse and generally remain with the property when it changes hands. However, a riparian right may be impaired or lost if a parcel is subdivided or land is otherwise severed from its water source, if the State Water Resources Control Board approves a prescriptive appropriative right, or if a court approves allocation of a stream's water among users.



Appropriative Water Rights

Since 1914, all new appropriations of surface water have required a permit from the State. The permits are issued by the State Water Resources Control Board and specify the amount of water that may be diverted, purposes for the water use, seasons of diversion, and the locations of diversion, storage (including underground storage) and use. An appropriative water right permit may allow the use of water at locations outside the watershed. When the State Board considers an application for a permit, it evaluates whether water is available during the requested season and potential environmental impacts, including any impacts on the rights of the public to use the waterway for navigation, commerce, fishery, recreation, aesthetic enjoyment and the preservation of open space, ecological study areas and wildlife habitat. Based on this evaluation, the State Board decides whether or not to issue a permit, and, if it issues a permit, what conditions to include in the permit.

Appropriative rights are limited to the amount of water that may be put to beneficial use, and a right may be lost after a period of nonuse. Appropriative water rights are based on a “first come, first served” principle; the first to take water has a superior right over later appropriators. In times of shortage, all appropriators must stop diverting water, if necessary to satisfy riparian rights. There is no sharing of a shortage among appropriators; instead, senior appropriators are entitled to exercise their rights to satisfy all of their reasonable needs before junior appropriators may divert any water.

Water flowing in subterranean streams through known and defined channels is subject to diversion, use and regulation under riparian and appropriative rights as described above. Water is considered to be flowing in a subterranean stream through a known and definite channel if it is in contact with surface water and moving in the same direction in a relatively defined channel. Groundwater not flowing in any subterranean stream through a known and defined channel is known as “percolating groundwater” and is not subject to surface water rights.

E. WATER MANAGEMENT

Tuolumne County Water Agency - It is the County’s commitment to support actions that provide adequate water on a Countywide basis, and to balance the needs, for current residents, agriculture, new development and other users. Much of Tuolumne County’s urban water needs are met through a network of local water providers, including utility districts, mutual water companies, investor-owned utilities, systems serving a small number of connections and special districts. In Tuolumne County there are over 130 State regulated water agencies/companies that provide water to customers in Tuolumne County.

The Tuolumne County Water Agency was reactivated on May 21, 2013, to ensure adequate safe water and sewer services for the citizens of Tuolumne County, now and in the future, and to protect, enhance and expand water resources throughout Tuolumne County. The goals of the Tuolumne County Water Agency are to assure access to County water; diversification of the County water portfolio; stewardship; achieve adequate water storage; and ensure secure, safe, and sustainable water and sewer infrastructure. The driving force is to ensure adequate water supplies to meet the diverse needs of a healthy and economically viable community. Such water supply needs include, but are not limited to: domestic consumption; fire protection; economic development; base industries, such as recreation and agriculture; and habitat protection.

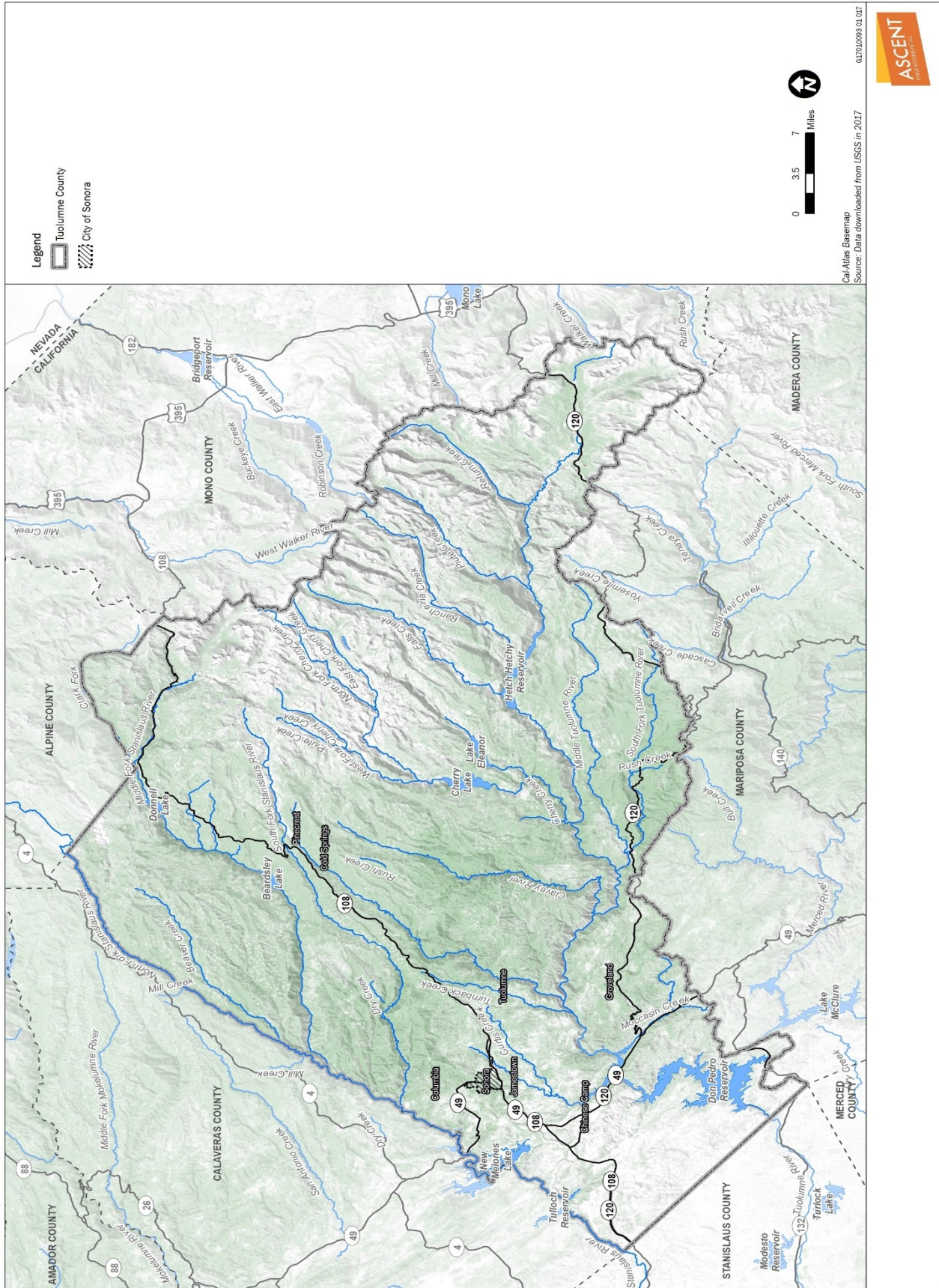
Tuolumne County Water Quality Plan - The Tuolumne County Water Quality Plan (Plan) was adopted by the Board of Supervisors on February 13, 2007 to establish a watershed-based planning framework. The Plan was identified as a need by County staff to address storm water runoff and non-point source pollution impacts on water quality within Tuolumne County’s watersheds to improve the quality of the County’s water resources over a 20-year planning horizon. Urban development projects, grading, failing septic systems, marina operations, mine



site runoff, certain agricultural and forestry practices, and public works projects all have cumulative effects on water quality in Tuolumne County. Conditions or mitigation measures, best management practices, and monitoring programs were developed as part of the Plan as a first step in addressing cumulative impacts to water quality. The Plan focused on three principal non-point sources of water pollution water quality concerns: pathogens and nutrients, urban contaminants (leaking underground storage tanks, disposal practices, and pH uncertainties), and erosion and sedimentation. Although several new programs were adopted under this Plan, their subsequent implementation is contingent on new funding sources. In addition, without a stable funding source, the implementation of the Plan and associated improvement projects are ultimately grant driven. The County's continued active pursuit of grant funding is critical to the success of the Plan and achieving long-term goals.

Urban Water Management Plan - Urban Water Management Plans (UWMP) are prepared by California's urban water suppliers to support their long-term resource planning and ensure adequate water supplies are available to meet existing and future water demands. Every urban water supplier that either provides over 3,000 acre-feet of water annually or serves more than 3,000 connections is required to assess the reliability of its water sources over a 20-year planning horizon considering normal, dry, and multiple dry years. This assessment is to be included in its UWMP, which is to be prepared every 5 years and submitted to the Department of Water Resources. Department of Water Resources then reviews the submitted plans to make sure they have completed the requirements identified in the Urban Water Management Planning Act (Division 6 Part 2.6 of the Water Code §10610 - 10656).

In addition to some changes in the Urban Water Management Planning Act, Governor Schwarzenegger in his 20x2020 Plan determined that for California to continue to have enough water to support its growing population, it needs to reduce the amount of water each person uses per day (Per Capita Daily Consumption, which is measured in gallons per capita per day). This reduction of 20 percent per capita use by the year 2020 is supported by legislation passed in November 2009, Senate Bill X7-7. Tuolumne County's 2020 target is 149 gallons per capita day.



CalAtlas Basemap
Source: Data downloaded from USGS in 2017
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Chapter 15

AIR QUALITY

A place where all citizens enjoy opportunities to thrive in a safe, healthy, and productive community.
- The Tuolumne County Vision

A. INTRODUCTION

While the residents of Tuolumne County enjoy some of the best air quality in the state (Tuolumne County is in attainment for the federal and state standards for carbon monoxide, nitrogen dioxide, sulfur dioxide, PM₁₀, PM_{2.5}, and lead (CARB 2015), the growing population of the County is accompanied by routine sources of air pollution: vehicles, industrial facilities, open burning, woodstoves and earth-moving equipment. Tuolumne County, and other mountain communities, violate the state ozone standard, however, due to transport from the Sacramento Valley, the San Joaquin Valley and the San Francisco Bay Area. As these upwind areas continue to address their air quality issues, thereby reducing their impacts on Tuolumne County, the County must also incorporate into its plans the measures necessary to facilitate growth while protecting the public health and welfare.

Although there are no required attainment plans, or other local plans specifically addressing air quality, Tuolumne County must conform to existing state and federal air quality standards. The Tuolumne County Air Pollution Control District (TCAPCD) is the primary agency responsible for planning to meet these standards.

Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with an adequate margin of safety, to protect public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14, the elderly over 65, persons engaged in strenuous work or exercise, and people with cardiovascular and chronic respiratory diseases. The majority of sensitive receptor locations are therefore residences, schools and hospitals. Sensitive receptors are located throughout Tuolumne County.

While the General Plan includes many Air Quality goals and policies, its key provisions include:

- reducing vehicular emissions through land use planning and transportation planning that reduce traffic congestion,
- promoting public transit, pedestrian and bicycle access to homes, businesses, schools and civic centers
- siting sources of industrial air pollutants away from residences and other sensitive receptors, and
- minimizing wood smoke from woodstoves and burning activities associated with fire hazard reduction and forest management practices.



By mitigating the air quality impacts of population growth, protection can be provided for one of the natural resources that attracts many to this area--clean air.

The goals, policies and implementation programs set forth in this Element are intended to preserve Tuolumne County's good air quality. Climate Change is discussed in Chapter 18 of this report.

B. LOCAL CLIMATE AND AIR QUALITY

Tuolumne County is located within the Mountain Counties Air Basin (MCAB), along with Amador, Calaveras, El Dorado (western), Mariposa, Nevada, Placer (central), Sierra, and Plumas counties. The general climate of the MCAB varies considerably with elevation and proximity to mountain peaks. The terrain features of the MCAB make it possible for various climates to exist within the general area. The pattern of mountains and hills is primarily responsible for the wide variations of rainfall, temperatures, and localized winds that occur throughout the region. Temperature variations have an important influence on MCAB wind flow, dispersion along mountain ridges, vertical mixing, and photochemistry. The Sierra Nevada receives large amounts of precipitation from storms moving over the continent from the Pacific Ocean. Precipitation in the MCAB is highly variable, depending on elevation and location. Areas in the eastern portion of the MCAB have relatively high elevations and receive the most precipitation. Precipitation levels decline toward the western areas of the MCAB. Climates vary from alpine in the high elevations of the eastern areas to more arid at the western edge of the MCAB.

B. CURRENT AMBIENT AIR QUALITY

The local Air Pollution Control Districts (APCDs) and Air Quality Management Districts (AQMDs) are required to monitor air pollutant levels to ensure that air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the local air basin is classified as being in "attainment" or "nonattainment." The MCAB violates the state ozone standard due to transport (i.e., air migration across air district lines) from the Sacramento Valley, the San Joaquin Valley, and the San Francisco Bay Area. The region is in attainment for the federal 1-hour standard, except for the western portions of El Dorado and Placer counties, which are part of the Sacramento federal nonattainment area.

The Tuolumne County Air Pollution Control District (TCAPCD) is responsible for implementing emissions standards and other requirements of federal and state laws regarding most types of stationary emission sources. CARB has determined that the ozone levels in Tuolumne County are caused by "overwhelming transport" of emissions into the air district. Therefore, the TCAPCD is relieved from preparing an attainment plan for ozone, and no other criteria air pollutant levels are high enough to require an attainment plan. Although there are no required attainment plans, or other local plans specifically addressing air quality, Tuolumne County must conform to existing state and federal air quality standards.



Chapter 16

NATURAL RESOURCES

A place where all citizens enjoy opportunities to thrive in a safe, healthy, and productive community.
- The Tuolumne County Vision

A. INTRODUCTION

The Natural Resources Element recognizes the diversity of biological resources in Tuolumne County, which range from coniferous forests in the high Sierra to annual grasslands in the lower foothills. The County is bordered to the north by the Stanislaus River and is bisected by the Tuolumne River. These river systems and their tributaries provide riparian habitat, for which potential impacts associated with development must be addressed under state and federal law. This Element identifies measures to conserve those natural resources while balancing the rights of private property owners.

Roughly 77% of the land in the County is publicly owned or managed and provides conservation of biological resources and open space values. Large portions of the Stanislaus National Forest and Yosemite National Park are located in the County. These and other public lands within the County provide habitat for a wide variety of plants and animals, along with agriculture and timberlands. Many agricultural and timber management uses are compatible with conservation of biological resources. Approximately 156,272 (47%) of the 329,293 acres of privately owned land in Tuolumne County are designated for agricultural uses and approximately 85,652 acres (26%) are designated for timber production, which together represent 73 percent of land in private ownership the County.

B. AESTHETICS (SCENIC RESOURCES)

The visual character within the unincorporated county is predominantly rural with dispersed small-town communities surrounded by open expanses consisting of agriculture, native vegetation, and low-density rural residential development. Natural features strongly contribute to this visual landscape. The spectacular topographic diversity of Tuolumne County, ranging from the mountainous landscape and steep canyons of the High Sierras in the east to the foothills and gently undulating plains in the west, adds visual interest. Deep river canyons are cut into the western slope of the Sierra Nevada in Tuolumne County. In their upper reaches in the higher Sierra, rivers and glacial sculpturing have carved massive granite cliffs.

Water Resources - Prominent water resources also contribute to the rural visual character of Tuolumne County, including rivers, streams, creeks, lakes, and large reservoirs. Lake Don Pedro, New Melones Reservoir, Lake Tulloch to the west and the Hetch Hetchy, Beardsley, Lyon's and Pinecrest reservoirs in the eastern County are important water features. Connecting these lakes and reservoirs are the Stanislaus, Tuolumne, and Clavey Rivers



with their deep canyons and steep cliffs. Flowing through the County are numerous vegetated streams and creeks such as Sullivan Creek and Curtis Creek among, which contribute to the County's visual character.

Native Plants - Native vegetation and tree cover are important ingredients in the visual character throughout the County.

Community Character - The visual character of established communities in Tuolumne County is influenced by surrounding natural features, as well as their built environments. The Red Hills provide a serpentine backdrop to Chinese Camp, limestone outcrops and remnant marble deposits are scattered throughout Columbia, and the lava cliffs of Table Mountain are visible from Jamestown and Columbia. Within the built environment, individual historic structures and entire historic districts may have visual appeal as living examples of the Gold Rush era, other periods of the County's history, and a diverse set of architectural styles. Other visually important examples of the built environment include bridges or overpasses, landscaped roadways, railroads, and locations where historic events occurred.

Scenic Roadways - Roads and highways in Tuolumne County traverse areas of great scenic beauty, offering enjoyable experiences for passing motorists, cyclists, and hikers. Portions of State Routes (SR) 49, 108 and 120 are eligible for designation as *State Scenic Highways*. Although the County does not currently have any officially designated *State Scenic Highways*, Tuolumne County identifies portions of SR 49, 108, and 120 to be locally designated scenic routes, as shown in Figure 16.1. The status of a state scenic highway changes from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation (Caltrans) for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a Scenic Highway.

Scenic Vistas - Although the County has many areas of scenic beauty, there are only three vista points officially designated by Caltrans. These vista points are located on SR 120 at post miles (PM) 19, 21 and 44. PM 19 and 21 can be found at Don Pedro Lake, and PM 44 "Rim of the World" overlooks the canyon containing the South Fork of the Tuolumne River. The Rim Fire of 2013, which burned approximately 400 square miles, has altered the scenic character of this overlook by reducing the amount of vegetative cover.

C. FORESTS

Tuolumne County includes a variety of hardwood, coniferous, and mixed woodlands and forests (General Plan EIR, Exhibit 3.4-1, and also as Figure 7.1 herein). The County contains approximately 690,000 acres of conifer forest/woodland, 231,000 acres of hardwood forest/woodland, and 53,000 acres of mixed conifer and hardwood forest and woodlands. Descriptions of forest and woodland habitat types are provided in the General Plan EIR.

Timberlands

Tuolumne County designates areas as Timber Production (which are consistent with Timber Production Zones [TPZs]) in areas where growing and harvesting of timber and other forest products occurs in concert with limited, low-intensity public and private commercial recreational uses. The Timber Production designation is found primarily in the eastern portion of the County at elevations above 3,000 feet. Land designated Timber Production is interspersed with federally-owned land within the Stanislaus National Forest and Yosemite National Park. GIS data indicates that 85,652 acres of Timber Production land located within the County. Figure 1.7 (Official Land Use Diagram) shows areas currently designated Timber Production. Information about County timberlands, which is defined as commercially viable land producing fiber or forest products, and the County's Timberland Production Zone are described in detail in Chapter 7, Section A.



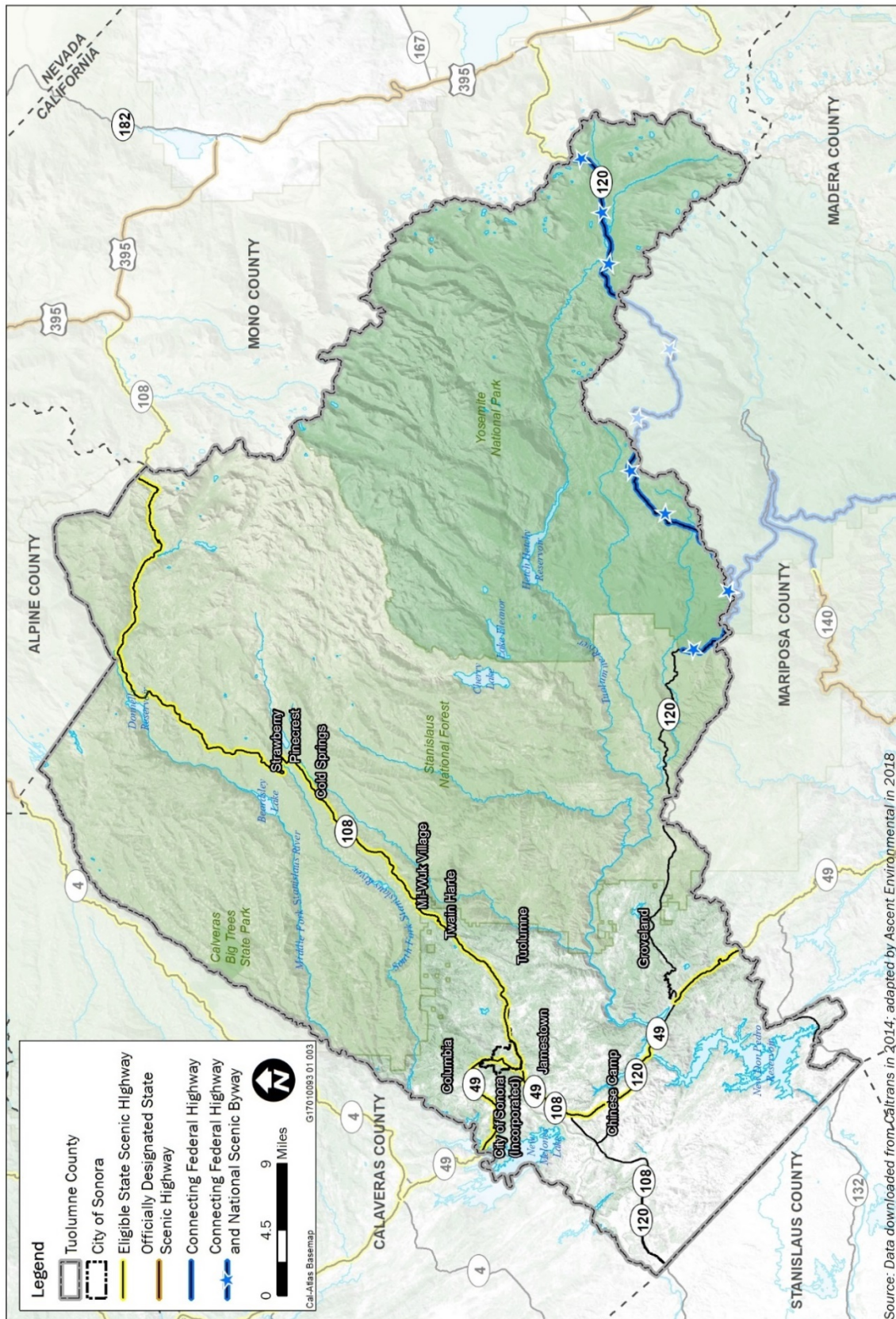
Oak Woodlands

In 2001, the California legislature enacted the Oak Woodlands Conservation Act (AB 242), which established requirements for the preservation and protection of oak woodlands and trees, and allocated funding managed by the Wildlife Conservation Board. In order to qualify to use these funds, counties and cities must adopt an oak conservation management plan. Additionally, section 21083.4 of the California Environmental Quality Act requires the County to determine if the conversion of oak woodlands resulting from a development project will have a significant effect on the environment.

The lower and middle elevations of Tuolumne County contain approximately 115,010 acres of oak woodland, including blue oak woodland (72,025 acres), blue oak-foothill pine (11,236 acres), interior live oak woodland (30,724 acres), and valley oak woodland (1,025 acres). Of this amount, approximately 21,262 acres (18.5%) are on potentially developable parcels (i.e., residential, commercial, mixed use, business park, etc.) throughout the entire County; and, 10,808 acres (9%) are located specifically within identified community boundaries. The majority of oak woodland in Tuolumne County is located within proposed agricultural (68,863 acres) and public (24,015 acres) land use designations. An additional 164,883 acres of montane hardwood and montane hardwood-conifer are distributed in the middle to upper elevations of the County. Although montane hardwood and montane hardwood-conifer habitats may contain a substantial oak element, the amount of oak cover is typically variable and oaks are often not the dominant species.



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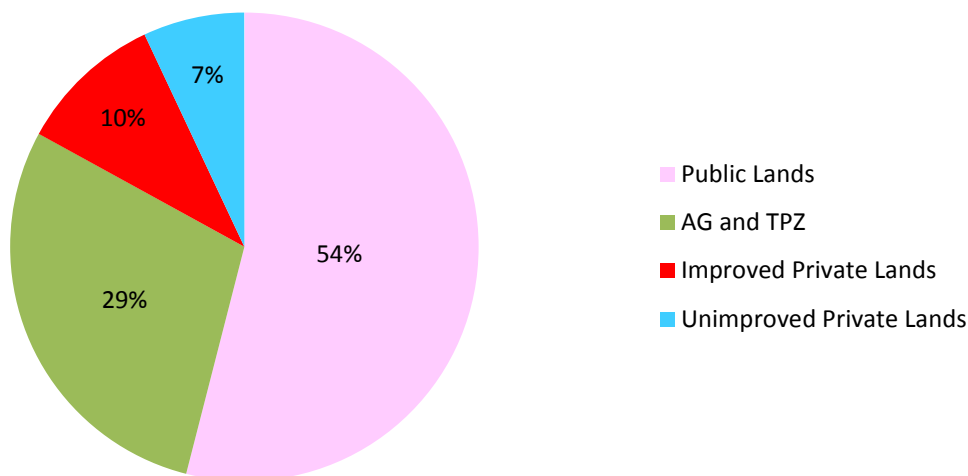
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Oak Woodlands in Tuolumne County



D. SOILS

Important Farmland is primarily located within California's Central Valley, where optimal soil quality, growing season, moisture supply and irrigation is available. This is not the case on Tuolumne County, where rock outcroppings and thinner soil mantles are common, Agricultural lands in Tuolumne County are primarily used as grazing lands.

The U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) also maintains a national soils database on the Web Soils Survey, which catalogues indices of soil quality such as prime farmland and Capability Class; in Tuolumne County, however, this database only covers Stanislaus National Forest and Yosemite National Park and does not extend to the western foothills region.

The Farmland Mapping and Monitoring Program (FMMP), which is maintained by the California Department of Conservation, rates agricultural lands according to soil quality and irrigation status. Mapping pursuant to the FMMP has not been completed in Tuolumne County.

Tuolumne County is one of 11 of the 58 counties in the state that is not mapped by the Natural Resources Conservation Service. However, in 1976 the County was mapped by the US Forest Service. Soil-Vegetation Maps for the County were created for the USGS Quadrangle Maps within the County boundaries. These maps have been digitized and are available at Tuolumne County Community Resources Agency.

E. FLORA AND FAUNA

Tuolumne County contains a wide diversity of tree (hardwood and coniferous forests, oak woodlands), shrub (chaparrals), and herbaceous (grasslands) habitat types. Thirty-four habitat types were mapped using the Northern Sierra Nevada Foothills Vegetation Project data (Aerial Information Systems et al. 2011) and the California Wildlife Habitat Relationships (CWHR) habitat classification system within Tuolumne County (CDFW



2008). For purposes of displaying the broad distribution of habitats across the County, these 34 habitat types were aggregated into nine general habitat categories shown in Figure 7.1 (Land Cover).

Special Status Plants and Animals

Tuolumne County is home to several species protected by federal and state agencies. Important animal species can be found in a variety of habitats in the County. The CNDDDB (CDFW 2015), CNPS (2015), and USFWS IPaC (USFWS 2015b) together list 177 special-status animal (42 species) species and plant (135 species) known or with potential to occur within Tuolumne County. The status and habitat requirements for each of these species are presented in the General Plan EIR.

Critical Habitat

USFWS has designated critical habitat in Tuolumne County for eight threatened and endangered plant and animal species: Sierra Nevada yellow-legged frog (*Rana sierrae*), Yosemite toad (*Anaxyrus canorus*), Sierra Nevada bighorn sheep (*Ovis canadensis sierrae*), Steelhead – Central Valley Distinct Population segment (DPS) (*Oncorhynchus mykiss irideus*), Colusa grass (*Neostapfia colusana*), Fleshy owl's-clover (*Castilleja campestris* ssp. *succulenta*), Hoover's spurge (*Chamaesyce hooveri*), Greene's Tuctoria (*Tuctoria greenei*). Figure 16.2 shows the distribution of federally-designated critical habitat in Tuolumne County.

F. MINERALS

Mineral Resource lands of varying quality exist throughout the County, and are identified on the Land Use Diagram through the Mineral Preserve (-MPZ) overlay. Details about the mineral resources in the County are described in greater detail in Chapter 7, Section B.

G. OPEN SPACE AND GREENWAYS

Because of the location of Tuolumne County in relationship to federal land ownership, the County has an abundance of open space areas. In addition to open land under the ownership of the federal government, privately owned agricultural and timber land provides significant open space throughout the County. Recreation areas, outside of the federal lands, are generally located near existing communities and are managed by either the County or other recreation agencies. In addition, many homeowner associations have private parks and lakes, and some of those facilities are open to the public. These quasi-public facilities, in addition to those under the regulation of local government, provide public health benefits and opportunities for community recreation activities. Additional details on recreation facilities in located in Chapter 11 of this report.

Open Space for Natural Resources

The County recognizes that roughly 77% of the land in the County is publicly owned or managed and provides conservation of biological resources and open space values. The Tuolumne County General Plan includes the Land Use Designation "Public," (LU Designation #18), which comprises 1,125,238 acres of land that that are owned by public agencies, such as the Stanislaus National Forest, Yosemite National Park, Columbia State Historic Park, Railtown 1897 State Historic Park, and lands under the jurisdiction of the Bureau of Land Management, Bureau of Reclamation, public schools, public utilities and other public agencies, as well as the County's own property. This designation allows all types of public uses, such as utilities, government offices, schools, airports, libraries, recreational facilities and resource management and utilization. Additionally, the Tuolumne County General Plan includes the Land Use Designation "Open Space," (LU Designation #19), which comprises 861 acres of land that is



set aside for conservation of biological resources and open space values. The combined land area of Public, Open Space, and Parks and Recreation (discussed below) are depicted in Figure 1.6.

Open Space for Managed Production of Resources

The County recognizes that agricultural and timberlands provide open areas and habitat for wildlife. Many agricultural and timber management uses are compatible with conservation of biological resources. Approximately 156,277 of the 329,293 acres of privately owned land in Tuolumne County are designated for agricultural uses and approximately 85,652 acres are designated for timber production, which together represent 17% of all land in the County.

- **Agriculture** - The Tuolumne County General Plan includes the Land Use Designation "Agriculture," (LU Designation #16), which comprises 156,277 acres of land that include crop production, orchards and vineyards, grazing, pasture and rangeland, recreational farming, resource extraction activities, facilities that directly support agricultural operations and public facilities. Allowable residential development in areas designated AG include one single family dwelling and one additional single family dwelling per parcel, caretaker and employee housing and agricultural laborer housing. The AG designation provides for the production of food, feed, fiber, nursery and apiary commodities and other productive or potentially productive lands where commercial agricultural uses can exist without creating conflicts with other land uses or where potential conflicts can be minimized. This designation is found throughout the County but is concentrated in the western part of the County, and is depicted in Figure 1.6.
- **Timberlands** - Within Tuolumne County, timberlands exist on public and private properties. Timberland Production Zone TPZ, a General Plan Land Use designation, amounts to 85,652 acres. Details about County timberlands are described in greater detail in Chapter 7, Section A.

Open Space for Outdoor Recreation

The Tuolumne County General Plan includes the Land Use Designation "Parks and Recreation," (LU Designation #20), which comprises 5,287 acres of land that include parks, camping facilities, recreational vehicle parks, ski and other resort facilities, marinas, and commercial uses in support of such facilities and public utility and safety facilities. The R/P designation provides for recreational uses of a commercial nature to serve the tourist industry as well as providing leisure activities for the County's residents. This designation is found primarily along the County's highway corridors and is also interspersed in the Stanislaus National Forest and Yosemite National Park. Tuolumne County itself operates and maintains over 341 acres of parks.

Open Space for Public Health and Safety

- **Seismic Zones** - A regional appraisal to evaluate potential seismic and geologic hazards in the western part of Tuolumne County is presented on the General Plan's Geotechnical Interpretive Maps. Details about seismic areas in the County are described in greater detail in Chapter 17, Section C1.
- **Dam Inundation Areas** - There are 42 dams in Tuolumne County. Figure 17.1 shows potential dam inundation areas in Tuolumne County. Details about dam inundation areas in the County are described in greater detail in Chapter 17, Section C2.



- **Floodplains** - Tuolumne County has many waterways consisting of ephemeral drainages, intermittent streams, perennial streams and rivers. The County's most recent digital FIRMs, which came into effect on April 16, 2009, define the special flood hazard areas within the County. Details about floodplains in the County are described in greater detail in Chapter 17, Section E.

Open Space for Military Support

There are no military-bases located in Tuolumne County. Details about County airports, however, are described in greater detail in Chapter 4, Section F.

Open Space for Tribal Resources

Due to the sensitive nature of tribal cultural resources, no site descriptions or graphics are presented in the General Plan documents. Additional information about tribal cultural resources is presented in the General Plan DEIR.

H. OTHER

Wetlands

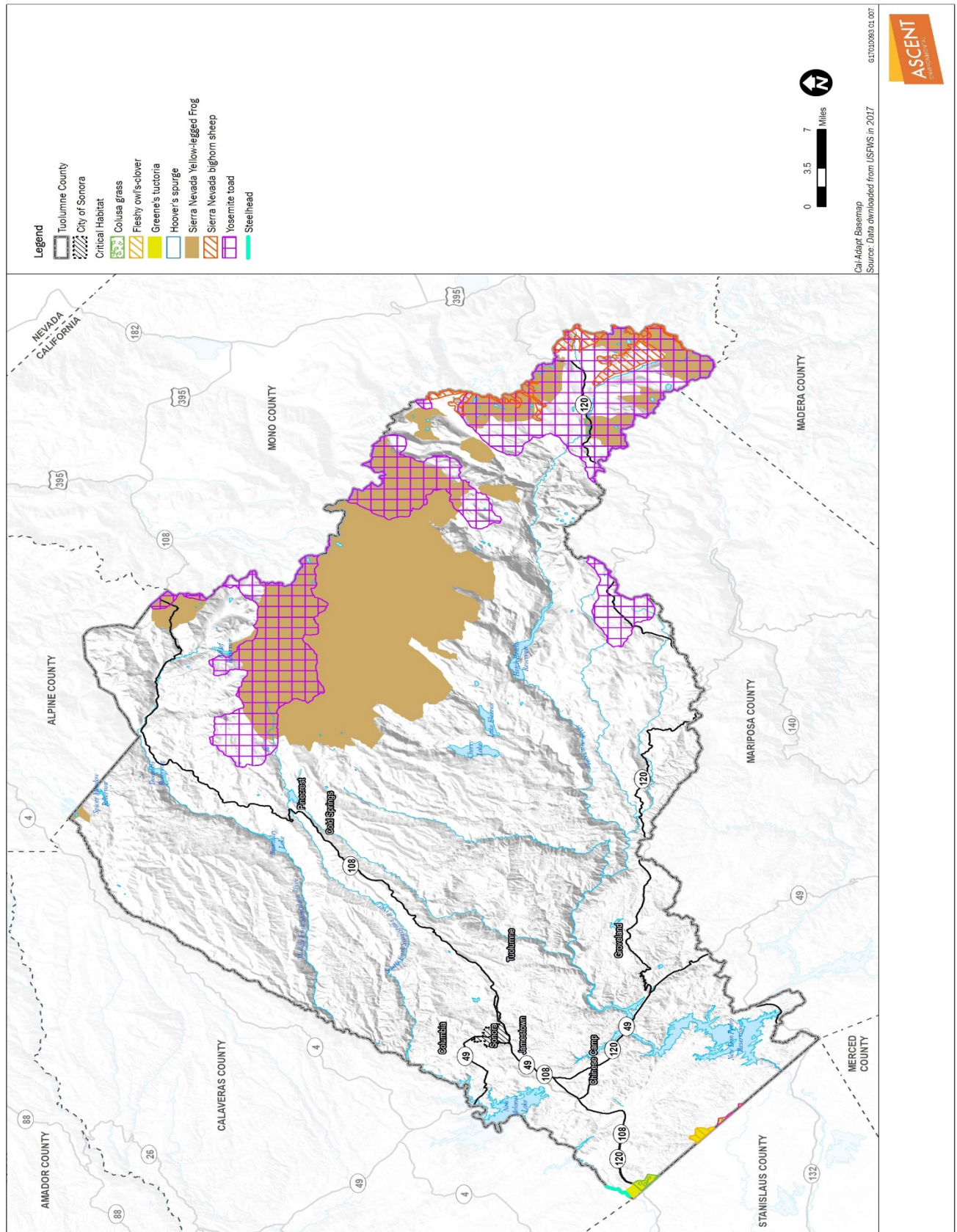
Wetlands are important biological resources both because of their rarity and because they serve a variety of functional values. Several types of wetlands exist in the County, including freshwater marshes: ponds, emergent wetlands, forested/shrubs; vernal pools, and riparian habitats: lakes, riverine, wet meadow. (Figures 16.3, 16.4 and 16.5).

Energy Producing Resources

There are 42 dams in Tuolumne County that range in size from those that retain large reservoirs dedicated to irrigation, water supply, and power generation, to small facilities used in water distribution and treatment systems or for recreation.

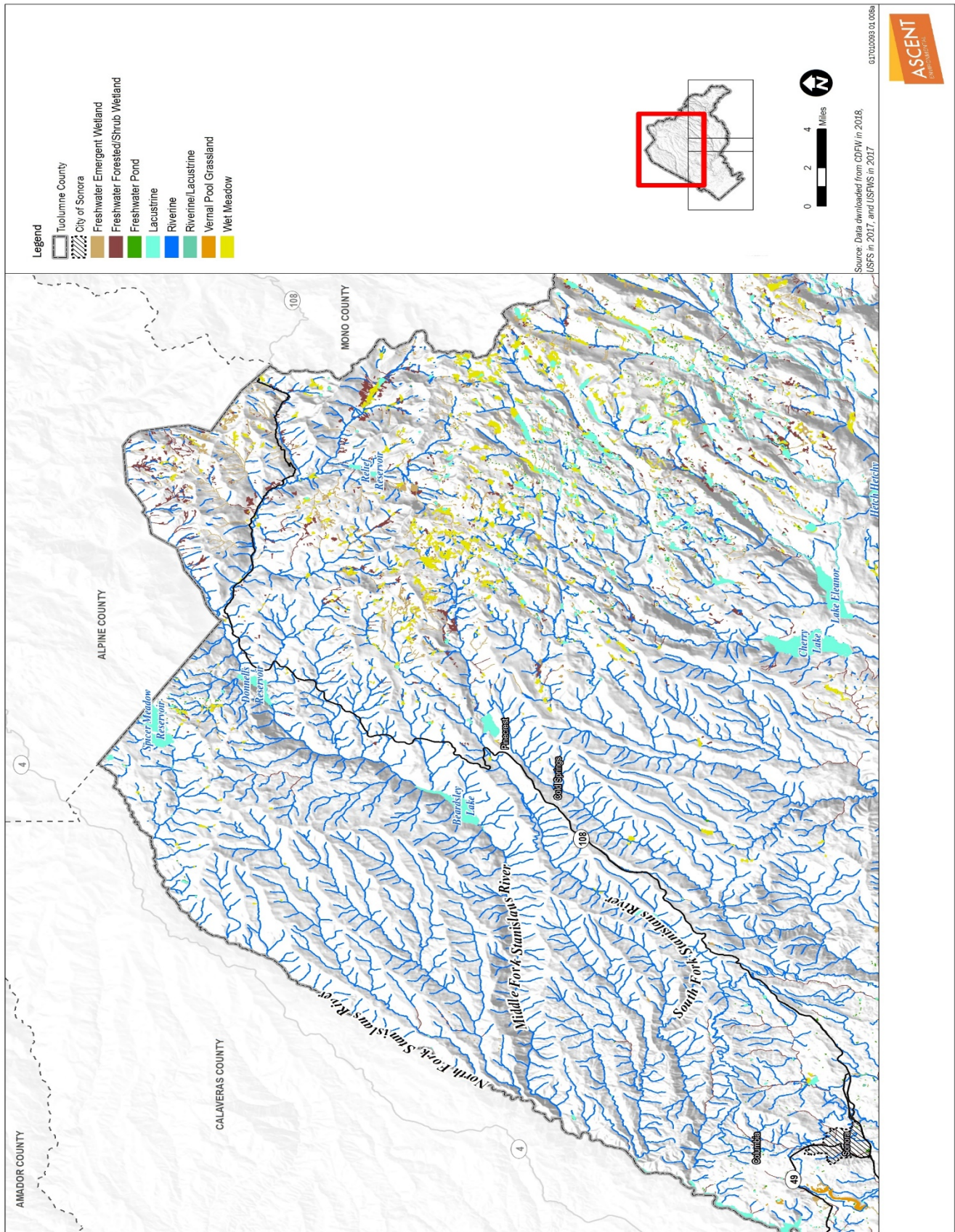
The Tuolumne River watershed drains an area of approximately 1,533 square miles. Its headwaters originate in the high Sierra at the eastern edge of Tuolumne Meadows in Yosemite National Park, and continue through the park to Hetch Hetchy Valley, where the main branch is dammed by the 95 year-old O'Shaughnessy Dam, forming the Hetch Hetchy Reservoir.

In addition, the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) maintains records of the location and details of construction and abandonment of all oil and gas wells. Oil wells were not identified within Tuolumne County using the Division of Oil, Gas & Geothermal Resources Well Finder.



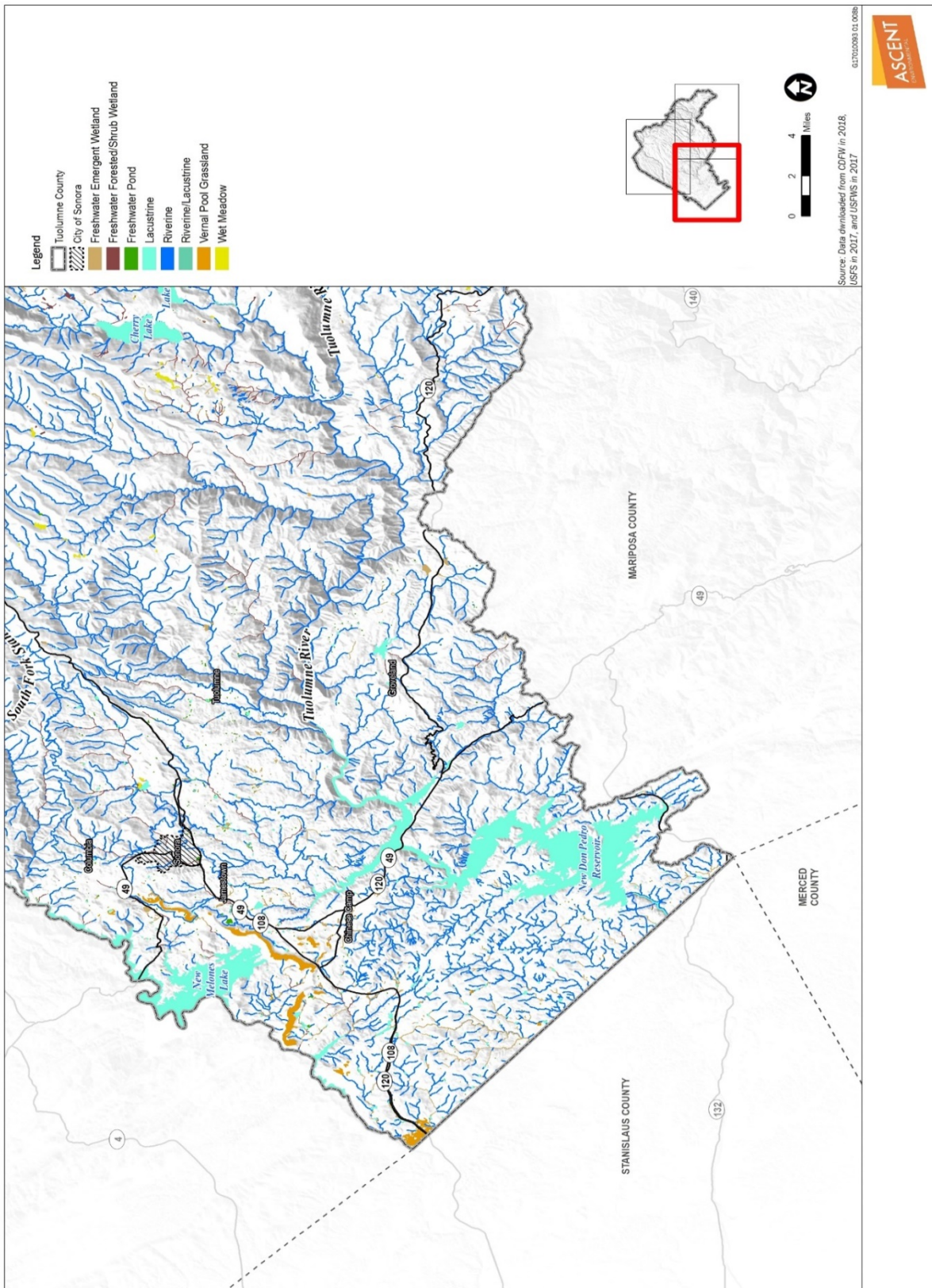


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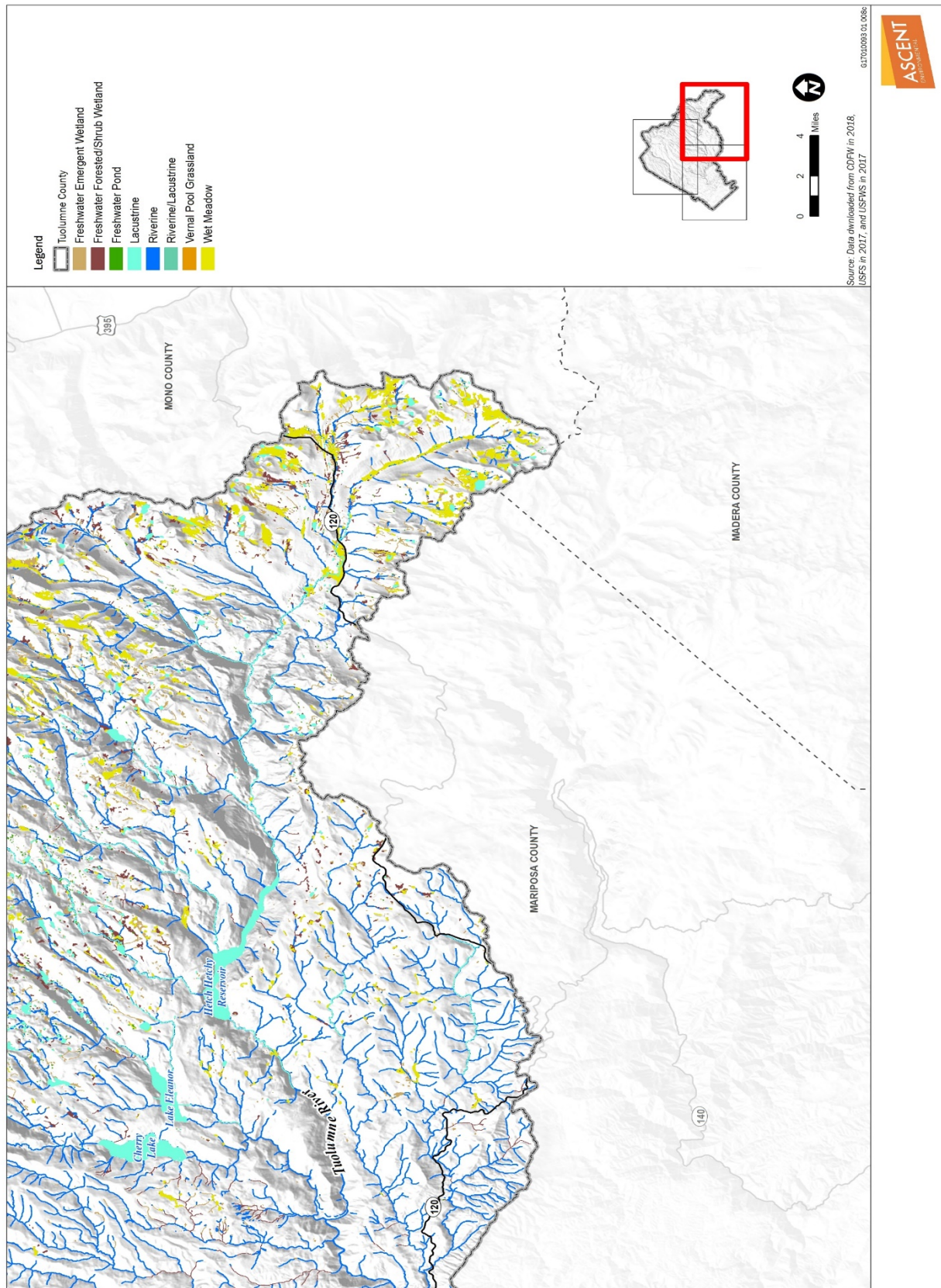


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Chapter 17

NATURAL HAZARDS

A place where all citizens enjoy opportunities to thrive in a safe, healthy, and productive community.
- The Tuolumne County Vision

A. INTRODUCTION

Section 65302(g) of the California Government Code requires that the General Plan include a Safety Element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence and other geologic hazards known to the legislative body; flooding, and wildland and urban fire. The Safety Element is the primary vehicle for relating local safety planning to County land use decisions. The Safety Element aims at reducing death, injuries, property damage, and the economic and social dislocation resulting from natural hazards, thereby improving the quality of life within the County. In Tuolumne County the required Safety Element content is located in the Natural Hazards Element.

Within Tuolumne County, the interface of the natural and manmade environments create potential safety hazards, including wildland fires and flooding. This element, while focusing on fire, flooding, and geologic hazards, also addresses other public safety issues relevant to Tuolumne County, including: emergency services, crime, hazardous waste and drought. Other uses of water are addressed in the Water Resources Element.

Another vehicle for addressing public safety is the Tuolumne County Multi-Jurisdiction Hazard Mitigation Plan (LHMP). Both the State of California and the U.S. Congress made the development of a LHMP a specific eligibility requirement for any local government applying for mitigation grant funding for natural hazards. Communities with an adopted plan will therefore become “pre-positioned” and more apt to receive any available mitigation funds. In an effort to sustain local commitment to hazard mitigation, Tuolumne County prepared a LHMP that was adopted by the Board of Supervisors on October 19, 2004. During 2012, Tuolumne County updated the LHMP. On December 4, 2012, the Board of Supervisors adopted the 2013 Tuolumne County Multi-Jurisdictional Hazard Mitigation Plan pursuant to Resolution 74a-12. The Federal Emergency Management Agency (FEMA) approved the LHMP on September 3, 2013. The LHMP recommends specific actions to combat or accommodate the forces of nature and protect the County’s residents from hazard losses associated with earthquakes, flooding, landslides and sinkholes, volcanoes, wildfire, extreme weather and hazardous materials. Besides the County of Tuolumne, other jurisdictions participating in the LHMP hazard mitigation planning and approval process include the City of Sonora, Groveland Community Services District, Twain Harte Community Services District, Tuolumne Utilities District, Jamestown Sanitary District, Columbia Fire Protection District, Mi-Wuk Sugar Pine Fire Protection District, Belleview Elementary School District, Big Oak Flat – Groveland Unified School District, Columbia Union School District, Curtis Creek School District, Jamestown Elementary School District, Sonora Elementary School District,



Sonora Union High School District, Summerville Elementary School District, Summerville Union High School District, Twain Harte Long Barn School District and the Tuolumne Band of Me-Wuk Indians.

B. SLOPE INSTABILITY LEADING THE MUDSLIDES AND LANDSLIDES

Mass wasting refers to the collective group of processes that characterize down slope movement of rock and unconsolidated sediment overlying bedrock. Landslides and mudflows are often triggered by other natural disasters such as floods, wildfires, and earthquakes.

In 2011, the California Geological Survey (CGS) developed a map for the State of California which illustrates susceptibility to deep-seated landslides. Based on a review of the CGS map and accompanying literature, the County is located in a part of the state where landslide susceptibility is low (Landslide Susceptibility Class V), apart from some isolated areas of moderate-high susceptibility (Landslide Susceptibility Class IX).

C. SEISMIC RISKS

Geologic hazards in Tuolumne County are associated with potential seismic activity along the Foothills fault zone and associated ground shaking. Hazardous situations could also result from development on unstable slopes within the County. Development on erosive soils, without proper environmental protection could result in significant soil loss, siltation of water bodies and visual impacts.

A regional appraisal to evaluate potential seismic and geologic hazards in the western part of Tuolumne County is presented on the General Plan's Geotechnical Interpretive Maps. The maps, which show the approximate boundaries of various hazard and resource zones (such as fault rupture zones, erosive soil areas, limestone deposits, etc.) are referenced in the Geologic Hazards Report. The Report further addresses seismic hazards including: ground rupture, ground shaking, ground failure and seiches, as well as geologic hazards, such as: landslides, unstable slopes, erosive soils, and subsidence and differential settlement.

Seismically Induced Surface Rupture, Ground Shaking, Ground Failure

In Tuolumne County, the predicted peak acceleration for the entire developed portion of the County does not exceed 20 percent of gravity, which puts the County in the lowest potential for the entire state. A total of four historical earthquake events with recorded magnitudes of 3.5 or greater (Richter Scale) occurred in or near Tuolumne County this past century. These earthquakes did not cause substantial damage due to their occurrence in mountainous and remote areas generally devoid of development or human presence. According to the Sonora General Plan 2020, there are four “capable” faults (i.e., faults with tectonic displacement within the last 35,000 years which could produce a quake) located within Tuolumne County: Negro Jack Point, Bowie Flat, Rawhide Flat West, and Rawhide Flat East.

Tsunami, Seiche and Dam Failure

As an inland region separated from the Pacific Ocean by approximately 150 miles, Tuolumne County is at no risk from tsunamis. According to the most recent Alquist-Priolo Earthquake Fault Zoning Map, earthquake-induced seiches also do not pose a risk to Tuolumne County. There are 42 dams in Tuolumne County that range in size from those that retain large reservoirs dedicated to irrigation, water supply, and power generation, to small facilities used in water distribution and treatment systems or for recreation. Large dams are mostly located along the Tuolumne and Stanislaus rivers. Figure 17.2 shows potential dam inundation areas in Tuolumne County.



Subsidence, Liquefaction and other Seismic or Geologic Hazards

Subsidence & Liquefaction - Land subsidence is the gradual settling or sinking of an area with very little horizontal motion. Subsidence related to human activity includes pumping water, oil, or gas from underground reservoirs; collapse of underground mines; drainage of wetlands; and soil compaction. Subsidence as a result of previous underground mining activity could prove to be consequential in portions of Tuolumne County where significant underground mining activity has occurred. Liquefaction is the process by which saturated, unconsolidated soil or sand is converted into a quicksand-like suspension during an earthquake. Due to the nature of the soils, groundwater conditions, and low seismicity in the County, the risk and danger of liquefaction and subsidence occurring within the County is considered to be minimal.

Expansive Soils - Expansive soils (also known as shrink-swell soils) are soils that contain expansive clays that can absorb significant amounts of water into their crystalline structure. When an expansive soil becomes wet, water is absorbed, and it increases in volume, and as the soil dries it contracts and decreases in volume. This (often repeated) change in volume can produce enough force and stress on buildings and other structures to damage foundations and walls.

D. MAPPING OF KNOWN SEISMIC AND OTHER GEOLOGIC HAZARDS

Geologic hazards in Tuolumne County are primarily associated with potential seismic activity along the Foothills fault zone and associated ground shaking. Tuolumne County is located approximately 12 miles east of the Foothills fault system. The Foothills fault system is a complex, braided system of individual fault segments that extends for approximately 200 miles from Mariposa in the south to Lake Almanor in the north. There are two primary fault zones within the Foothills fault system: the Melones fault zone along the east side of the system and the Bear Mountain fault zone on the west.

E. FLOODPLAINS AND FLOODING

Tuolumne County has many waterways consisting of ephemeral drainages, intermittent streams, perennial streams and rivers. Most of the major waterways in Tuolumne County are within deeply defined drainage channels, capable of containing flood waters. However, in some areas the drainage channels are less defined and are not capable of containing flood waters. In either case, flood waters create a potential hazard.

Damages resulting from the development of within and near floodplains can be minimized through floodplain management. This management concept encompasses a program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, public information and floodplain management regulations.

In 1990, Tuolumne County became a "regular" member of the Federal Emergency Management Agency, National Flood Insurance Program. Through this program, the special flood hazard area of the one hundred-year floodplain is the basic planning criteria used to distinguish areas where the danger of floods justifies the establishment of floodplain management regulations. A "special flood hazard area" means an area in the floodplain subject to a one (1) percent or greater chance of flooding in any given year. It is shown on an official flood insurance rate map (FIRM) issued by the Federal Emergency Management Agency (FEMA). The County's most recent digital FIRMs, which came into effect on April 16, 2009, define the special flood hazard areas within the County.



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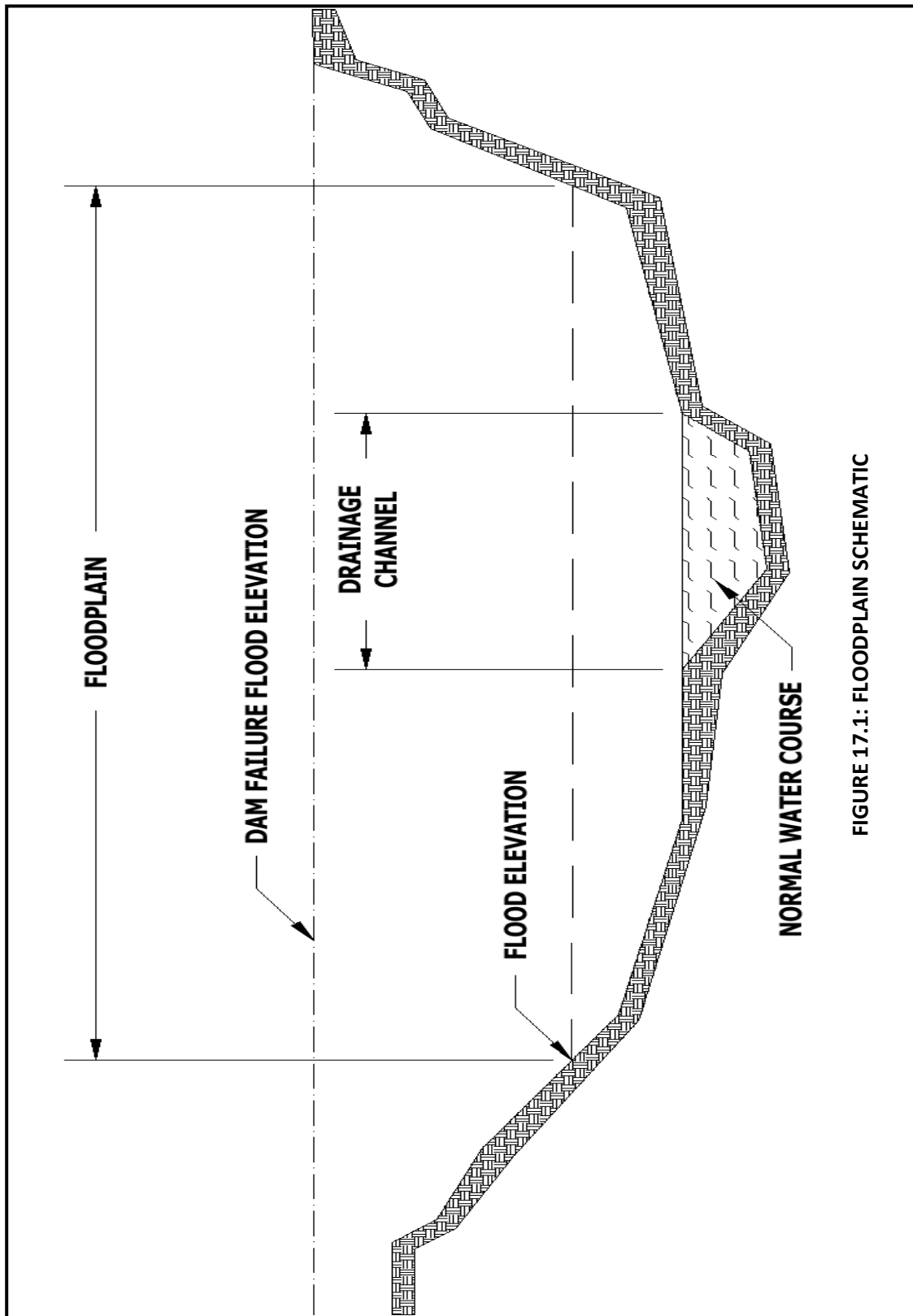


FIGURE 17.1: FLOODPLAIN SCHEMATIC



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For the majority of Tuolumne County, the 100-year floodplain is directly adjacent to waterways and other water-bodies (see Figure 17.3). There are no areas designated as 100-year floodplain on the FEMA FIRMs within the Jamestown Community Plan Area boundary. As such, development that would occur in this area would not be exposed to 100-year flood events and associated hazards. There is a small water-body within the Columbia Community Plan Area boundary south of Horseshoe Bend Road that is identified as within the 100-year floodplain. In addition, areas adjacent to the Upper Stanislaus River along the northwestern boundary of the Community Plan Area are within the 100-year floodplain. Within the East Sonora Community Plan Area, the Sonora, Curtis, and Sullivan Creeks run through the Plan Area. Areas within and around Sullivan and Curtis creeks are within the 100-year flood zone. Within the Tuolumne Community Plan boundary, there is one area within the 100-year floodplain south of Tuolumne Road along Turnback Creek. Three perennial streams run through the Mountain Springs Community Plan Area including the Sullivan Creek, Flores Creek, and Curtis Creek. Areas along Sullivan Creek and Curtis Creek are located within the 100-year floodplain although the potential for flooding is limited because of the small size of these streams and the rugged relief of the area.

The identification of a special flood hazard area does not imply the area outside the special flood hazard area or uses permitted within special flood hazard area will be free from flooding or flood damage. Areas inside the one hundred-year floodplain and other areas prone to flooding due to rain or dam failure should have some level of regulation or awareness to protect public health, safety, and welfare.

All development in the County located within an area of special flood hazard is subject to the provisions of the County's Flood Damage Prevention Ordinance (Chapter 15.24 of the TCOC). These provisions identify construction standards that all development must meet if constructed within a floodplain, thereby minimizing flood damage and risk to human safety.

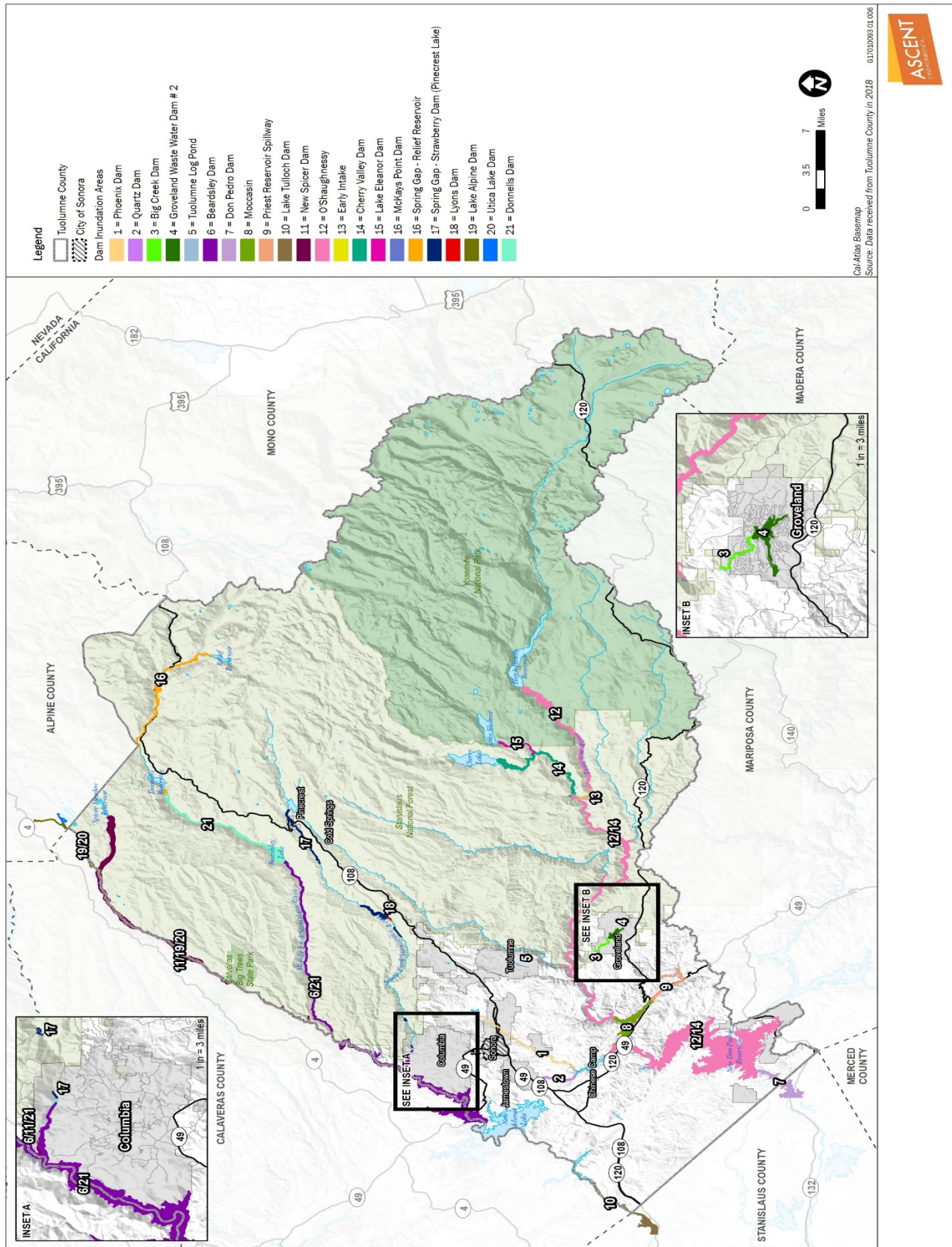
F. WILDLAND AND URBAN FIRE

The area of Tuolumne County with the greatest wildland fire hazard, based on fuels, weather, and topography, is on the east side of the Highway 49 corridor. However, almost every community in Tuolumne County has been threatened by wildfires. Figure 17.4 shows the Fire Hazard Severity Zones in Tuolumne County, as designated by CAL FIRE.

Fire protection in Tuolumne County is provided through a cooperative fire protection services approach. CAL FIRE provides administrative and operational services through a fire protection agreement to the County, the Jamestown Fire Protection District, and the Groveland Community Services District. Other local fire agencies in Tuolumne County include the Tuolumne Fire District, Columbia Fire Protection District, Mi-Wuk Sugar Pine Fire Protection District, Strawberry Fire Protection District, and Twain Harte Community Services District. The Tuolumne County Fire Department (TCFD) adopted the Service Level Stabilization Plan in 1992 to address fire protection needs in the service area. Thirty-two communities within Tuolumne County are listed on the Strategic Fire Plan for the Tuolumne/Calaveras Unit as "Communities at Risk" from wildland fires.

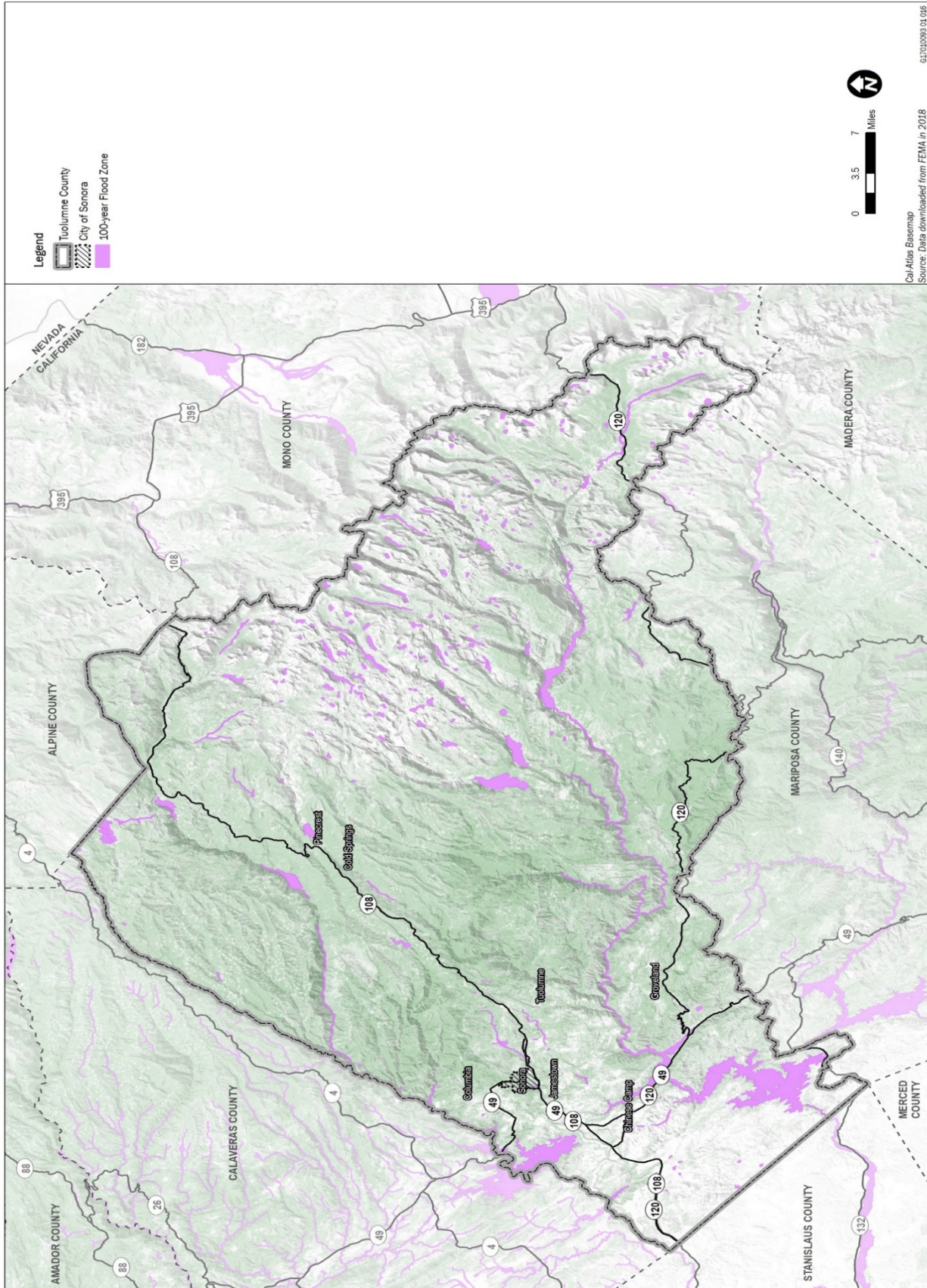


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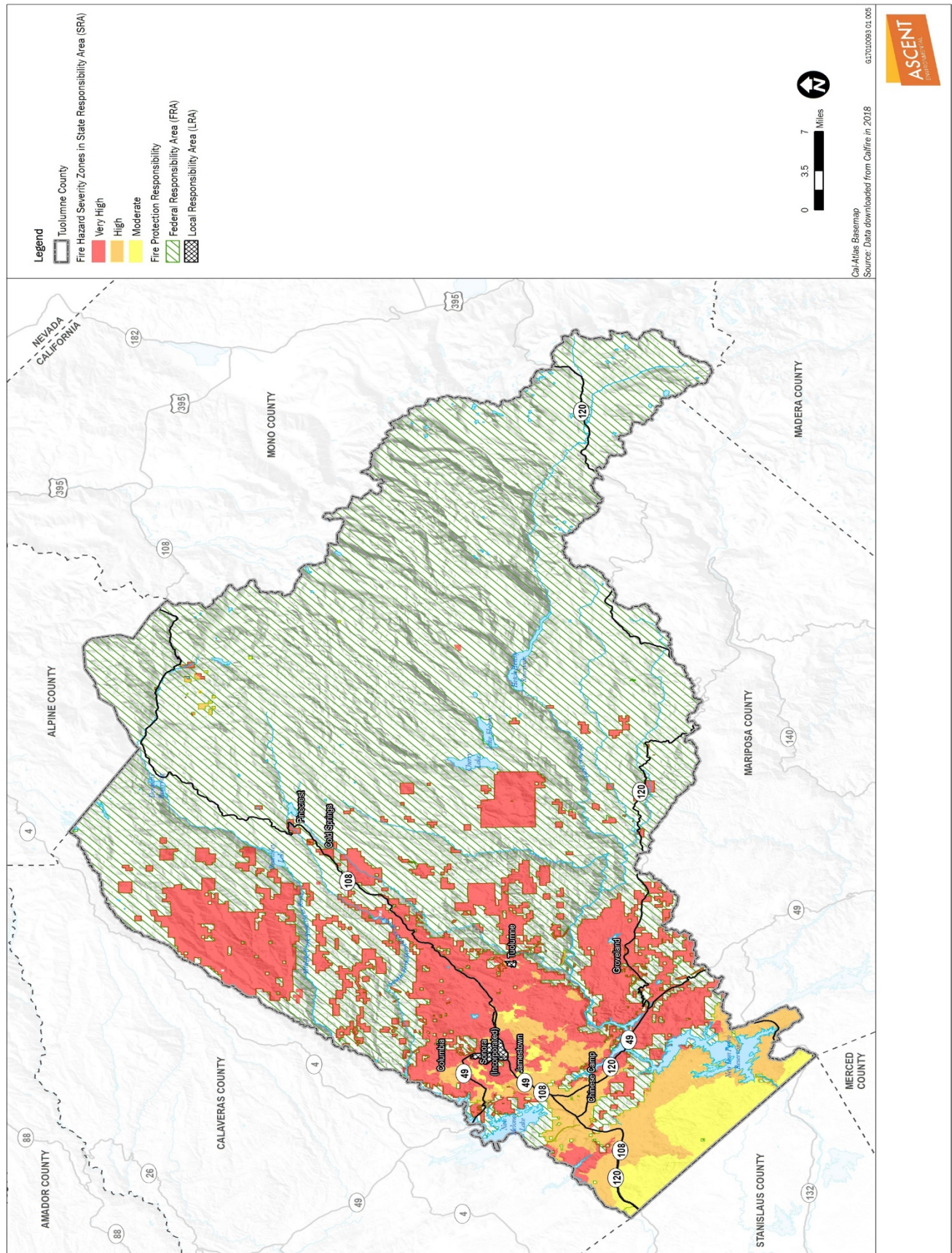


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G. CLIMATE ADAPTATION AND RESILIENCY

Tuolumne County received more than \$70 million in federal funding for an innovative disaster recovery and resilience program following the devastating 2013 Rim Fire. The funding, part of the U.S. Department of Housing and Urban Development's National Disaster Resilience Competition, will be used to help restore forest and watershed health, support local economic development and increase disaster resilience in the rural mountain areas affected by the fire.

Sensitive Assets, Resources, and Populations

Uncertainties exist as to exactly what the climate changes will be in various local areas of the Earth. According to the Intergovernmental Panel on Climate Change's Working Group II Report, *Climate Change 2007: Impacts, Adaptation and Vulnerability*, as well as the California Natural Resources Agency's report "Safeguarding California: Reducing Climate Risk" climate change impacts to California may include:

- Increasing evaporation;
- Realignment of ecosystems as species and habitat shift north and to higher elevations;
- Increased frequency, duration, and intensity of conditions conducive to air pollution formation (particularly ozone);
- changes to statewide precipitation patterns including diminishing Sierra snowpack, which is anticipated to decline by 70 percent to 90 percent, threatening the State's water supply;
- Increased average surface temperatures and more frequent heat waves;
- Increased growing season and increased growth rates of weeds, insect pests and pathogens;
- Inundation by sea level rise, and exacerbated shoreline erosion; and
- Increased incidents and severity of wildfire events and expansion of the range and increased frequency of pest outbreaks.

Tuolumne County and our various local agencies have a variety of assets, resources and populations that will be sensitive to various climate change exposure. This includes infrastructure assets, such as our roadways and water delivery systems, recreational facilities, structures housing sensitive populations (including residences and schools) that are located in and near flood zones, agricultural operations, energy infrastructure, forest resources, and the public health of residents.

Future Actions

As a part of this General Plan Update, the County identified the need to address climate change, adaptation, and resiliency through the preparation of a Climate Action Plan, or other similar document. This Climate Action Plan will include climate adaptation and resiliency strategies for incorporation into the Natural Hazards (Safety) Element of the General Plan. Policy 18.A.1 and Implementation Program 18.A.a outline the process and contents of a future Climate Action Plan. This plan will identify specific measures to reduce countywide emissions consistent with the targets established by the State Legislature. The climate adaptation update will include a set of goals, policies, and objectives for Tuolumne County based on the information specified in a climate vulnerability assessment for the protection of the community, as well as implementation measures, including the conservation and implementation of natural infrastructure that may be used in adaptation projects. The



vulnerability assessment will identify the risks that climate change poses to the local jurisdiction and the geographic areas at risk from climate change impacts.

The Climate Action Plan will also address the required topics in Government Code 65302(g)(4) which resulted from Senate Bill 379, which requires the local hazard mitigation plan or safety element to address climate adaptation and resiliency strategies. This will include a vulnerability assessment of sensitive assets, resources, and populations, the status of climate change preparedness, historical events and data regarding sites that have been repeatedly damaged, and at-risk areas where existing and planned development is located, including structures, roads, utilities, and essential public services.

At the conclusion of the Climate Action Plan process, the Natural Hazards (Safety) Element will be updated to reflect the adaptation and resilience considerations consistent with Senate Bill 379.

H. DROUGHT

Drought conditions in Tuolumne County result from inadequate precipitation during the normal rainy season, which usually comes in the form of rainfall in the lower elevations and snowfall in the upper elevations. Inadequate precipitation causes low soil moisture during what should be the rainy season, and a thin snowpack in the higher elevations. A drought, or an extreme dry period, is an extended timeframe where water availability falls below the statistical requirements for a region. Droughts are not a purely physical phenomenon, but rather interplay between the natural water availability and human demands for water supply. The precise definition of drought is made complex owing to political considerations, but there are generally four types of conditions that are referred to as drought:

- **Meteorological Drought** is brought about when there is a prolonged period with less than average precipitation.
- **Agricultural Drought** occurs when there is insufficient moisture for average crop or range production. This condition can arise, even in times of average precipitation, owing to soil conditions or agricultural techniques.
- **Hydrologic Drought** is brought about when the water reserves available in sources such as aquifers, lakes, and reservoirs falls below the statistical average. This condition can arise, even in times of average (or above average) precipitation, when increased usage of water diminishes the reserves.
- **Regulatory Drought** can occur in response to a policy decision by a public agency, such as the State Water Resources Control Board. Regulatory restrictions can affect hydrologic drought by limiting the ability to move water to storage or distribution areas when needed. (WPAC)

Impacts of Drought

Periods of drought can have significant environmental, agricultural, health, economic and social consequences. Drought can also reduce water quality, because lower water flows reduce dilution of pollutants and increase contamination of remaining water sources. Wildfires are typically larger and more severe in periods of drought due to the lower fuel moisture content.

Water Supplies - Drought also affects water supplies. Inadequate rainfall and snowpack reduces the runoff to the reservoirs supplying most of the potable water in the County. The reserved pools of water in those systems are not of adequate size to withstand a sustained drought of multiple years without either adding to the supply or rationing the water. In some cases, additional surface water can be obtained at a higher cost, but that is not



always available. Supplemental water can be obtained from wells, but the underground supply is very limited and also subject to reduced volumes during sustained droughts.

Native Plants - Dry soil conditions during winter and early spring result in poor plant growth. Most native trees and shrub species are drought resistant, and can withstand some deviation in rainfall. However, severe or prolonged drought (low rainfall for successive winters) stress woody plants and can result in higher than normal insect depredation or other biological stressors and causes mortality. During previous drought periods, the insect damage to pine trees resulted in significant mortality in some areas of the County, and a substantial though undefined financial loss to the silviculture industry.

Livestock - Lack of growth of annual grasses or other forage for livestock is a typical result of drought periods. Grasses and similar plants grow shorter or less dense as a result of lack of rainfall, and the forage available for grazing animals is significantly reduced. Dry land grazing ranchers are then forced to move the animals to other pasture, or reduce the herd by selling them off if alternative pasture is not available. The carrying capacity of the pastures is reduced, as are the economic benefits of ranching. Most of the grazing in Tuolumne County is “dry land” (not-irrigated), so lack of rainfall can make the difference between a profitable year or not. These economic losses can be considerable, and successive losses can drive a ranching concern out of business, often resulting in sale of the land to developers or others not dependent on deriving a living from the land and therefore less rainfall dependent.

Drought Considerations

All citizens can help ensure we have enough water for future generations by efficient use of water on a daily basis. A reliable water supply is essential. Its importance highlights the need to prepare for a drought or other water shortage. Contingency planning before a shortage allows selection of appropriate responses consistent with the varying severity of shortages. While the actions taken should be adequate to deal with the circumstances and no more, it is essential that water suppliers start demand-reduction programs before a severe shortage. Water suppliers that delay demand-reduction programs may exhaust reserve supplies early in an extended shortage and could cause unnecessary social and economic harm to the communities.



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Chapter 18

CLIMATE CHANGE

A place where all citizens enjoy opportunities to thrive in a safe, healthy, and productive community.
- The Tuolumne County Vision

A. INTRODUCTION

The Climate Change Element, discusses how GHG emissions and climate adaptation will be addressed in the plan area. The policies and implementation programs in the Climate Change Element provide details on how GHG emissions would be reduced through the implementation of the General Plan Update and provide specific strategies to prepare and adapt to the impacts of climate change. The Transportation Element and the Air Quality Element also includes policies and implementation programs which would reduce GHG emissions.

B. STATE PLANS, POLICIES, LAWS AND REGULATIONS

On April 20, 2015, EO B-30-15 was signed into law and established a California GHG reduction target of 40 percent below 1990 levels by 2030. This 2030 target sets the next interim step in the state's continuing efforts to pursue the long-term target expressed under Executive Order S-3-05 to reach the goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically-established levels needed in the U.S. to limit global warming below 2 degrees Celsius, the warming threshold at which major climate disruptions are projected, such as super droughts and rising sea levels. Several plans, policies, laws and regulations have been adopted prior to and subsequent to EO B-30-15 to reach this goal, and are described in detail in the Global Climate Change Chapter of the General Plan DEIR.

C. 2010 GREENHOUSE GAS EMISSION STUDY

A countywide (including incorporated areas) GHG emissions inventory for the year 2010, was prepared as part of the regional blueprint planning effort. It estimated that approximately 782,846 metric tons of carbon dioxide equivalent GHG emissions (MT CO₂e) were emitted as a result of activities and operations that took place within the transportation, residential (energy consumption), non-residential (energy consumption), off-road vehicles and equipment, agriculture and forestry, wastewater, and solid waste sectors. This equates to 9.8 MT CO₂e per resident and employee in Tuolumne County's service population.

D. 2016 RURAL SUSTAINABLE STRATEGY

In 2016, as part of the Tuolumne County Regional Transportation Plan (RTP), a Rural Sustainable Strategy (RSS) chapter was included which sets GHG reduction goals for the County consistent with SB 375, AB 32, and Executive



Order B-30-15. This chapter within the RTP provides an alternative sustainability plan that is feasible to Tuolumne County to remain consistent with the statewide GHG reduction goals. The RSS chapter includes several policies which specifically address GHG reductions.

E. ENERGY USAGE

Electric service in Tuolumne County is provided by Pacific Gas and Electric Company (PG&E). There is no natural gas consumption in Tuolumne County; however, there is propane consumption. As of June 2018, Tuolumne County contained nine alternative fueling stations.

Tuolumne County General Plan - The Community Development and Design, Housing, Transportation, Economic Development, Water, Air Quality, and Climate Change General Plan Elements contain goals and policies that would reduce energy consumption. Specific proposed General Plan policies related to energy are identified in Section 3.6.3 of the General Plan DEIR. Additionally, energy consumption tables are presented in Chapter 3.6 of the General Plan DEIR.

F. REDUCING GREENHOUSE GAS (GHG) EMISSIONS IN TUOLUMNE COUNTY

The General Plan includes a number of policies, such as those described below, which would reduce GHG emissions from the various emissions sources as the County continues to grow:

- reduce mobile source GHG emissions by reducing vehicle miles travelled in the County and the promotion of alternative modes of transportation such as biking and walking;
- prioritizing future development in existing communities in an effort to increase residential densities and encourage trips made by walking and biking;
- current state regulations;
- energy efficiency improvements and the use of renewable energy resources; and
- preparation of a Climate Action Plan that identifies specific measures to reduce countywide emissions consistent with state goals.

G. RESPONDING TO A CHANGING CLIMATE

Climate change is expected to result in a variety of effects that would influence conditions in the County. These effects include:

- increased frequency and intensity of wildfire as a result of changing precipitation patterns and temperatures;
- increased stormwater runoff associated with changes to precipitation patterns; and
- increased risk of flooding associated with changes to precipitation patterns.

See the "Climate Adaptation and Resiliency," Chapter 17, Section G of this Technical Background Report for additional discussion on adaptation and resiliency.



Appendix **A**

HOUSING ELEMENT



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Appendix

B

DEFINITIONS

A-Weighted Sound Level

All sound levels referred to in this document are in A-weighted decibels. A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to the human ear. Most community noise standards utilize A-weighting, because it provides a high degree of correlation with human annoyance and health effects.

Acceptable Risk

Acceptable risk means a hazard which is deemed to be a tolerable exposure to danger given the expected benefits to be obtained. Different levels of acceptable risk may be assigned according to the potential danger and the degree of critical use of the threatened structure. The levels may range from "near zero" for high occupancy or critical use areas to "moderate" for open space, agriculture and low-intensity warehouse use.

Access

Access is the ability to enter and exit a site or facility.

Accessory use

Accessory use means a secondary or subordinate use related to and on the same parcel or parcels of land as the principal use and conducted so as to not significantly change the character, appearance or operation of the principal use.

Acres, Gross

Gross acres means the entire acreage of a site including easements and rights-of-way.

Acres, Net

Net acres means the area of a parcel excluding areas within deeded or dedicated road easements and less any bodies of water that exceed twenty percent of the gross acreage.

Adaptive Reuse

Adaptive reuse means the conversion of obsolescent or historic buildings from their original or most recent use to a new use. For example, the conversion of a former hospital or school building to residential use or the conversion of an historic single-family home to office use.

**Adequate Housing**

Adequate housing is housing which: (1) is structurally sound, water- and weather-tight, with adequate cooking and plumbing facilities, heat, light and ventilation; (2) contains enough rooms to provide reasonable privacy for its occupants; and, (3) is within the economic means of the households who occupy it.

Adverse Impact

Adverse impact means a negative consequence for the physical, environment resulting from an action or project.

Affordable Housing

Affordable housing means housing capable of being purchased or rented by a household with extremely low, very low, low or moderate income, based on a household's ability to make monthly payments for the housing as determined through criteria established by Tuolumne County.

Agency

Agency means a governmental entity, department, office or administrative unit responsible for carrying out regulations.

Agricultural Building

An agricultural building is a structure designed and constructed to house farm implements, poultry, livestock, hay, grain, or other horticultural products.

Agricultural Labor Housing

Agricultural Labor Housing means temporary or permanent accommodations for employees engaged in agricultural operations on a working farm or ranch. The employees must obtain the majority of their compensation from the farm or ranch on which they reside during the time they reside there. Accommodations shall include any living quarters as provided in the Health and Safety Code. Agricultural Labor Housing on Williamson Act contract land is subject to recommendation by the Agricultural Advisory Committee and approval by the board of supervisors pursuant to Section 17.51.030 of the Tuolumne County Ordinance Code.

Agricultural Land Use

Agricultural land use means a commercial use of the land to produce food or fiber, and may include the packaging or processing of products originating on the land as well as compatible uses that are capable of co-existing with the current or future agricultural use without interfering with agricultural production.

Agricultural Lands

Agricultural lands are defined as those lands with a potential for crop production, or grazing, which combine suitable climatic, topographic, and soil conditions to produce food or fiber with or without irrigation and are capable of bringing a sufficient return to meet all production costs.

Agricultural Lands, High-value

High-value agricultural lands are agricultural lands which receive a score of 175 or higher as determined by the agricultural rating system matrix.

Agricultural Lands of Limited Importance

Agricultural lands of limited importance are agricultural lands which receive a score of 124 or less as determined by the agricultural rating system matrix.

**Agricultural Lands of Local Importance**

Agricultural lands of local importance are agricultural lands which receive a score of at least 125 but not more than 174 as determined by the agricultural rating system matrix.

Agricultural Preserve

Agricultural preserve means land designated for agriculture or conservation.

Agricultural Support Services

Agricultural support services are land uses which support local agricultural land uses through providing services or supplies necessary to the operation of an agricultural land use.

Agriculture

Agriculture means the use of land for the production of food, feed, fiber, nursery and apiary commodities, and their necessary accessory uses.

Agriculture-related Business

Agriculture-related business means businesses that support local agriculture, such as feed mills, poultry processing, creameries, auction yards, processing facilities, wineries and veterinarians.

Agritourism

Agritourism includes any income-generating activity conducted on a working farm or ranch for the enjoyment and/or education of visitors and which is compatible to the agricultural operation of the property. Agritourism in Tuolumne County allows visitors and local residents the opportunity to experience agriculture and a rural lifestyle first hand. Types of agritourism include, but are not limited to: farm or ranch tours; commercial gardens; tasting rooms; room and board opportunities such as farm stays, bed and breakfasts, and guest ranches; recreational uses such as hiking, fishing, hunting, trail riding, and wildlife viewing; sales of agricultural products and their promotional items; special events such as weddings, festivals, and other public gatherings; and agricultural education workshops and seminars.

Air Ambulance

An air ambulance is any rotor or fixed wing aircraft equipped and used for the primary purposes of responding to emergency calls and transporting critically ill or injured patients, whose medical flight crew has at a minimum two (2) attendants certified or licensed in advanced life support.

Air Pollution

Air pollution is the concentration of substances found in the atmosphere which exceed naturally occurring quantities and are undesirable or harmful in some way.

Airport Land Use Compatibility Plan

The Airport Land Use Compatibility Plan is a plan developed pursuant to Section 21675 of the California Public Utilities Code to provide guidelines for the ALUC to evaluate any new land uses under consideration by a public agency which may affect or be affected by airport activities to determine if these projects would be compatible with current and anticipated airport operations.

**Airport Land Use Commission (ALUC)**

The Airport Land Use Commission (ALUC) is a commission established by the Tuolumne County Board of Supervisors in May, 1977 pursuant to Sections 21670-21677 of the California Public Utilities Code to promote the orderly development of each public airport within the County and its area of influence in such a manner as to safeguard both the welfare of the inhabitants in such areas and the interests of the general public and to assure safety of air navigation as well as to encourage the growth of air commerce.

Airport Overlay (-AIR)

Airport overlay is an overlay applied on other (primary) land use designations, whose purpose is to provide for the orderly development of land surrounding the public use airports in the County and minimize the public's exposure to excessive noise and safety hazards associated with use of the airports.

Airport-related Use

Airport-related use means a use which supports airport operations including, but not limited to, aircraft repair and maintenance, flight instruction, and aircraft chartering.

Air Rights

Air rights are the rights granted by a property owner to use space above an existing right-of-way or other site.

Alley

Alley means a public thoroughfare not more than thirty feet in width which affords a means of access to abutting property and a link between

Alluvial

Alluvial means soils deposited by stream action.

Alteration

Alteration means any change or modification, through private or public action, to the character-defining or significant physical features of a cultural resource. Such changes may be changes to or modification of structure, architectural details, or visual characteristics, grading, surface paving, the addition of new structures, cutting or removal of trees, landscaping, and other natural features, disturbance of archaeological sites or areas, and the placement or removal of any significant objects such as signs, plaques, light fixtures, street furniture, walls, fences, steps, plantings, and landscape accessories affecting the significant visual and/or historical qualities of the property.

Ambient

Ambient means surrounding on all sides. It is a term used to describe measurements of existing conditions with respect to traffic, noise, air and other environments.

Amenity

Amenity is any service or facility which extends beyond the definition of adequate housing.

Annex

Annex means to incorporate a land area into an existing district or municipality, with a resulting change in the boundaries of the annexing jurisdiction.

**Anticipatory Demolition**

Anticipatory demolition is the intentional removal or disturbance of a cultural resource during the environmental review process or within three years or less of submitting a development proposal.

Apartment

Apartment means one or more rooms of a building used as a place to live in a building containing at least one other unit used for the same purpose. Apartment also means a separate suite, not owner occupied, which includes kitchen facilities and is designed for and rented as the home, residence, or sleeping place of one or more persons living as a single housekeeping unit.

Approach Zone

Approach zone means the air space at each end of a landing strip that defines the glide path or approach path of an aircraft and which should be free from obstruction.

Appropriate

Appropriate means an act, condition or state which is considered suitable.

Aquifer

Aquifer means an underground, water-bearing layer of earth, porous rock, sand or gravel through which water can seep or be held in natural storage. Aquifers generally hold sufficient water to be used as a water supply.

Archaeological

Archaeological means relating to the material remains of past human life, culture or activities.

Archaeological Resource

See cultural resource.

Artesian

Artesian means an aquifer in which water is confined under pressure between layers of impermeable material. Wells tapping into an artesian stratum will flow naturally without the use of pumps. (See "Aquifer")

Base Flood

Base flood means a flood having a 1% chance of being equaled or exceeded in any given year (also called the "100-year flood")

Bed and Breakfast

Bed and breakfast refers to a dwelling unit which provides lodging and breakfast for temporary overnight occupants for compensation.

Best Management Practices (BMP)

Best management practices mean any program, technology, process, siting criteria, operating method, measure or device which controls, prevents, removes, or reduces impacts from an action. The most effective, or "best" techniques are applied to each specific circumstance depending on the problem, physical or geopolitical setting.

Bikeway

Bikeway is a term that encompasses bicycle lanes, bicycle paths and bicycle routes.

**Biological Resources**

Biological resources include all vertebrate and invertebrate animal species and all plants and the habitats occupied by these plant and animal species.

Biomass

Biomass is plant material, used for the production of such things as fuel alcohol, non-chemical fertilizers, and electrical energy. Biomass sources may be plants grown especially for that purpose or waste products from livestock, harvesting, milling or from agricultural production or timber land processing.

Bond

A bond is an interest-bearing promise to pay a stipulated sum of money, with the principal amount due on a specific date. Funds raised through the sale of bonds can be used for various public purposes.

Buffer

Buffer means an area or band of land that serves to separate inherently or potentially incompatible land uses, such as residential areas and areas of intensive agriculture, and acts to soften or mitigate the effects of one land use on the other. Buffers may be an expanse of undeveloped land, a water course, tree stand, landscape berm, roadway, ridge or other topographic feature.

Building

Building means any structure used or intended for supporting or sheltering any use or occupancy.

Buildout; Build-out

Buildout means the development of land to its full potential or theoretical capacity as permitted under current or proposed land use designations or zoning districts.

Business Incubator

A business incubator is a facility which provides inexpensive, appropriately-sized space, access to commonly required administrative support services, and access to management, financial and technical assistance for the purpose of reducing small business failures by making it easier for them to survive the critical early stages of business development.

California Department of Forestry and Fire Protection (CAL FIRE)

The California Department of Forestry and Fire Protection (CAL FIRE) is the state agency that has primary responsibility for wildland fire protection on state and private lands within California pursuant to Sections 4102 and 4125-4127 of the State Public Resources Code. This is commonly referred to as the State Responsibility Area. Generally speaking, these are watershed lands which are not within incorporated cities, federal lands, or agricultural crop lands. CAL FIRE also has wildland fire protection responsibility on lands administered by the Bureau of Land Management, Bureau of Reclamation, and Army Corps of Engineers located within Tuolumne County through contract agreements with those federal agencies. CAL FIRE responds to structure and improvement fires during the fire season because they are a threat to its responsibilities and will act to extinguish these fires.

California Environmental Quality Act (CEQA)

The California Environmental Quality Act is a state law requiring state and local agencies to regulate activities with consideration for environmental protection.

**California Forest Practice Rules**

The California Forest Protection Rules are rules established under Title 14 of the California Code of Regulations Sections 895-1115.41 which set forth best management practices for timber harvesting activities.

California Forest Stewardship Program-Stewardship Incentive Program

This voluntary program is implemented through the California Department of Forestry and Fire Protection and encourages and financially assists land owners to manage private forest lands to provide economic and environmental benefits for themselves and future generations.

California Register of Historical Resources

The California Register of Historical Resources is a comprehensive listing of California's historical resources including those listed in or formally determined eligible for the National Register of Historic Places, California Registered Historical Landmarks No. 770 onward, and CA Points of Historical Interest that have been evaluated by the State Office of Historic Preservation. To be listed, a resources must be associated with events contributing to the broad patterns of the state's history and culture, or with historically important people; or it must embody distinctive characteristics of type, period, region, or construction method, or represent the work of a creative individual; or it must have a potential for yielding important information in California's history or prehistory.

Caltrans

Caltrans means the California Department of Transportation.

Capital Improvement Program (CIP)

A Capital Improvement Program is a plan, adopted by a city or county, that schedules physical improvements, usually for a minimum of five years in the future, to fit the projected fiscal capability of the jurisdiction. The program should be reviewed annually for conformance to and consistency with the General Plan.

Carbon Dioxide

Carbon dioxide is a colorless, odorless, non-poison gas that is a normal part of the atmosphere.

Carbon Monoxide

Carbon monoxide is colorless, odorless, highly poisonous gas produced by automobiles and other machines with internal combustion engines that imperfectly burn fossil fuels such as oil and gas.

Census

Census means the official decennial enumeration of the population conducted by the federal government.

Central Business District (CBD)

The Central Business District is the major commercial downtown center of a community.

Central California Information Center (CCIC)

The Central California Information Center (CCIC) is the resource inventory maintained by the Central California Information Center at California State University at Stanislaus, in Turlock.

Central Sierra Economic Development District (CSEDD)

The CSEDD is an Economic Development District formed by a joint powers agreement between the Counties of Alpine, Amador, Calaveras, Mariposa and Tuolumne and the Cities of Angels Camp, Sonora and the five cities of Amador County.



Certified Local Government Program

The Certified Local Government Program is a program sponsored by the California Office of Historic Preservation (SHPO) and the United States Department of the Interior that provides funding and technical assistance for local historic preservation programs and requires adoption of a county cultural resources protection ordinance and maintenance of a cultural resource inventory.

Channelization

Channelization means (1) The straightening and/or deepening of a watercourse for purposes of storm-runoff control or ease of navigation. Channelization often includes lining of stream banks with a retaining material such as concrete. (2) At the intersection of roadways, the directional separation of traffic lanes through the use of curbs or raised islands which limit the paths that vehicles may take through the intersection.

Character

Character means special physical characteristics of a structure or area that set it apart from its surroundings and contribute to its individuality.

Circulation Element

Circulation element is one of seven State-mandated elements of a local general plan, it contains adopted goals, policies and implementation programs addressing the circulation of people, goods, energy, water, sewage, storm drainage, and communications, all correlated with the land use element of the general plan.

City

City, with a capital "C," generally refers to the government or administration of a city. City, with a lower case "c" may mean any city, or may refer to the geographical area of the city (e.g., the city's bikeway system.)

Clear Zone

Clear zone is that section of an approach zone of an airport where the plane defining the glide path is 50 feet or less above the center line of the runway. The clear zone ends where the height of the glide path above ground level is above 50 feet. Land use under the clear zone is restricted.

Climate Adaptation

Climate adaptation is the adjustment or preparation of natural or human systems to a new or changing environment that moderates harm or exploits beneficial opportunities.

Clustered Development

Clustered development means development in which a number of dwelling units are placed in closer proximity than usual, or are attached, with the purpose of retaining an open area.

Code Enforcement

Code enforcement is the power of the local government to require that all properties meet certain standards of construction, maintenance, health, and safety.

Commercial

Commercial is a land use classification which permits facilities for the buying and selling of commodities and services.

**Commercial Stable**

Commercial Stable means a building or enclosed area where horses are offered for rent or boarded for compensation.

Commercial Strip

Commercial Strip means commercial development, usually one store deep, that fronts on a major street for a distance of one city block or more. Includes individual buildings on their own lots, with or without on-site parking, and small linear shopping centers with shallow on-site parking in front of the stores.

Community Care Facility

Community Care Facility means elderly housing licensed by the State Health and Welfare Agency, Department of Social Services, typically for residents who are frail and need supervision. Services normally include three meals daily, housekeeping, security and emergency response, a full activities program, supervision in the dispensing of medicine, personal services such as assistance in grooming and bathing, but not nursing care. Sometimes referred to as residential care or personal care. (See "Congregate Care.")

Community Development Block Grant (CDBG)

CDBG is a grant program administered by the U.S. Department of Housing and Urban Development (HUD) on a formula basis for entitlement communities, and by the State Department of Housing and Community Development (HCD) for non-entitled jurisdictions. This grant allots money to cities and counties for housing rehabilitation and community development, including public facilities and economic development.

Community Facilities District

Community Facilities District means, under the Mello-Roos Community Facilities Act of 1982 (Government Code Section 53311 *et seq*), a legislative body may create within its jurisdiction a special district that can issue tax-exempt bonds for the planning, design, acquisition, construction, and/or operation of public facilities, as well as provide public services to district residents. Special tax assessments levied by the district are used to repay the bonds.

Community Services District

Community Services District means an agency formed for the local performance of governmental or proprietary functions within limited boundaries. A Community Services District may provide services such as water, sewer, fire, recreation and street lighting.

Community Garden

Community Garden means any piece of land (publicly or privately held) that is cultivated by a group of people rather than a single family or individual. Unlike public parks and other green spaces maintained by local governments, community gardens are generally managed and controlled by a group of unpaid individuals or volunteers.

Community Noise Equivalent Level (CNEL)

Community Noise Equivalent Level means a 24-hour energy equivalent level derived from a variety of single-noise events, with weighing factors of approximately 4.8 and 10 decibels applied to the evening (7:00 PM to 10:00 PM) and nighttime (10:00 PM to 7:00 AM) periods, respectively, to allow for the greater sensitivity to noise during these hours.

**Community Plan**

A Community Plan is a geographically-specific element of the Tuolumne County General Plan.

Community Water System

A community water system is a public water system which serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents. (Section 64400.10 of the California Code of Regulations)

Commute-shed

A Commute-shed is the area from which people do or might commute from their homes to a specific workplace destination, given specific assumptions about maximum travel time or distance.

Compatible

Compatible means, capable of existing together without conflict or ill effects.

Complete Streets

A design approach that requires streets to be planned, designed, operated, and maintained to enable safe, convenient and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation. Complete Streets allow for safe travel by those walking, cycling, driving automobiles, riding public transportation, or delivering goods.

Comprehensive Hazardous Waste Management Plan

The Comprehensive Hazardous Waste Management Plan, developed pursuant to Sections 25135 et seq. of the California Health and Safety Code, intended to identify hazardous waste producers within Tuolumne County and the flow of wastes produced; identify means of handling the waste on or off site; and to determine if safe, effective, and economical facilities for the management of hazardous wastes are available when they are needed, and that these facilities are of the type, and operated in a manner, which protect public health and the environment.

Congestion Management Plan (CMP)

A Congestion Management Plan is a plan, required by law to be adopted by cities and counties, to control and/or reduce the cumulative regional traffic impacts of development. The plan employs growth management techniques, including traffic level of service requirements, standards for public transit, trip reduction programs involving transportation systems management and jobs/housing balance strategies, and capital improvement programming.

Congregate Care

Congregate Care is apartment housing, usually for seniors, in a group setting that includes independent living and sleeping accommodations in conjunction with shared dining and recreational facilities. (See "Community Care Facility.")

Conservation

Conservation means the management of natural and cultural resources to prevent waste, destruction, or neglect.

Conservation Element

Conservation Element is one of the seven State-mandated elements of a local general plan; it contains adopted goals, policies and implementation programs for the conservation, development, and use of natural resources



including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources.

Conservation value

The conservation value is the relative value of an area, if managed for the protection of one or several species, to the overall or long-term survival of those species and their habitats.

Conserve

Conserve means to manage or utilize in order to prevent waste, destruction or neglect.

Consistent

Consistent means free from variation or contradiction. Programs in the General Plan are to be consistent, not contradictory or preferential. State law requires consistency between a general plan and implementation programs such as the zoning ordinance.

Cottage Industry

Cottage industry means any activity conducted for economic gain entirely within a dwelling or private garage, and carried out exclusively by the inhabitants thereof and which is merely incidental to the residential use of the parcel and does not change its residential character or appearance. (See "Home Occupation")

Council of Governments (COG)

The COG is an organization created to undertake planning and whose membership is composed of elected officials of local governments in the planning area; recognized as an areawide planning organization by the U.S. Department of Housing and Urban Development and/or state agencies.

County

County, with a capital "C," generally refers to the government or administration of a county. County, with a lower case "c" may mean any county, or may refer to the geographical area of a county (*e.g.*, the county's road system.)

County Integrated Waste Management Plan

The County Integrated Waste Management Plan is a plan developed pursuant to Section 40000 et seq. of Division 30 of the California Public Resources Code to provide for planned management of solid waste within Tuolumne County. The Plan includes provisions for reduction of solid waste, recycling, management of household hazardous waste, and siting of solid waste facilities.

County Services Impact Mitigation Fee (CSIMF)

The County Services Impact Mitigation Fee (CSIMF) is a fee charged by Tuolumne County pursuant to Chapter 3.50 of the Tuolumne County Ordinance Code to mitigate the impact caused by new development and construction projects on public facilities and public services required to serve such new development.

Covenants, Conditions, and Restrictions (CC&Rs)

CC&Rs is a term used to describe restrictive limitations which may be placed on property and its use, and which usually are made a condition of a holding title or a lease.

Criterion

Criterion is a standard upon which a judgment or decision may be based. (See "Standards.")

**Critical-use structures**

Critical-use structures are buildings or other structures that are critical for use during and immediately after disasters, particularly seismic-related events. Examples of critical-use buildings are hospitals, fire stations, police stations, and jails or prisons. Examples of critical-use structures are dams, sewage treatment plants, and water treatment or storage facilities.

Cul-de-sac

A cul-de-sac is a short street or alley with only a single means of ingress and egress at one end with a large turnaround at its other end.

Cultural Resource

Cultural resources relate only to remains and sites associated with human activities and include the following: prehistoric and ethnohistoric Native American sites, historic archaeological sites, historic buildings and elements or areas of the natural landscape which have traditional cultural significance to the citizens of Tuolumne County, the State of California, the foothill region, or the nation.

Cumulative Impact

Cumulative impact is the total impact resulting from the accumulated impacts of individual projects or programs over time and is a term used in the California Environmental Quality Act (CEQA).

Day/Night Average Sound Level (L_{dn})

The day/night average sound level (L_{dn}) is the average equivalent sound level during a 24-hour day, obtained after addition of ten (10) decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.

Decibel (dB)

Decibel means a unit used to express the relative intensity of a sound as it is heard by the human ear. The decibel scale expresses sound level relative to a reference sound pressure of 20 micronewtons per square meter, which is the threshold of human hearing. Sound levels in decibels (dB) are calculated on a logarithmic basis. An increase of 10 decibels represents a 10-fold increase in acoustic energy, and an increase of 20 decibels corresponds to 100-fold increase in acoustic energy. An increase of 10 dB is usually perceived as a doubling of noise.

dBA

dBA is the "A-weighted" scale for measuring sound in decibels; weighs or reduces the effects of low and high frequencies in order to simulate human hearing. Every increase of 10 dBA doubles the perceived loudness though the noise is actually ten times more intense.

Dedication

Dedication means the turning over by an owner or developer of private land for public use, and the acceptance of land for such use by the governmental agency having jurisdiction over the public function for which it will be used. Dedications for roads, parks, school sites, or other public uses often are made conditions for approval of a development by a city or county.

Dedication, In lieu of

In lieu of dedication means cash payments which may be required of an owner or developer as a substitute for a dedication of land, usually calculated in dollars per lot, and referred to as in lieu fees or in lieu contributions.

**Defensible space**

Defensible space means the area within the perimeter of a parcel where basic wild-land fire protection practices and measures are to be implemented and maintained, including but not limited to removing brush, flammable vegetation, or combustible growth that is located from 30 feet to 100 feet from a building or structure measured from the eaves, porches, decks and balconies to the property line, to provide the key point of defense from an approaching wildfire or an escaping structure fire.

Demolition

Demolition is any act or process that destroys all or part of one or more cultural resources.

Density, Residential

Residential Density means the number of permanent residential dwelling units per acre of land. Densities specified in the General Plan are expressed in units per gross acre. (See "Acres, Gross," and Acres, Net.")

Density Bonus

Density Bonus is the allocation of development rights that allow a parcel to accommodate additional square footage or additional residential units beyond the maximum for which the parcel is zoned, usually in exchange for the provision or preservation of an amenity at the same site or at another location.

Density Transfer

Density transfer is a way of retaining open space by concentrating densities--usually in compact areas adjacent to existing urbanization and utilities--while leaving unchanged historic, sensitive, or hazardous areas.

Department of Housing and Community Development (HCD)

The HCD is the State of California's department responsible for housing policy and programs. Establishes guidelines for preparation of local housing elements, prepares the statewide housing plan, and offers technical assistance to local jurisdictions.

Department of Housing and Urban Development (HUD)

HUD is the federal government department responsible for administration of federal housing programs including, FmHA, Section 8 and Community Development Block Grants. Provides annual estimate on median and other income levels for Tuolumne County.

Design Review

Design Review is the comprehensive evaluation of an improvement to a parcel and its impact on neighboring properties and the community as a whole, from the standpoint of site and landscape design, architecture, materials, colors, lighting, and signs, in accordance with a set of guidelines. Under Design Review, projects are reviewed against certain guidelines and criteria.

Detention Dam/Basin/Pond

Dams may be classified according to the broad function they serve, such as storage, diversion, or detention. Detention dams are constructed to retard flood runoff and minimize the effect of sudden floods. Detention dams fall into two main types. In one type, the water is temporarily stored, and released through an outlet structure at a rate that will not exceed the carrying capacity of the channel downstream. Often, the basins are planted with grass and used for open space or recreation in periods of dry weather. The other type, most often called a Retention Pond, allows for water to be held as long as possible and may or may not allow for the controlled release of water. In some cases, the water is allowed to seep into the permeable banks of gravel strata in the



foundation. This latter type is sometimes called a Water-Spreading Dam or Dike because its main purpose is to recharge the underground water supply. Detention dams are also constructed to trap sediment. These are often called Debris Dams.

Deteriorated

Deteriorated refers to a housing unit which exhibits evidence of exterior wall, foundation, roof, chimney and doorway deficiencies which are physically capable of repair.

Developable Land

Developable land means land that is suitable as a location for structures and that can be developed without significant impact on natural and/or cultural resource areas.

Developer

A developer is any person or entity who carries out development.

Development

Development is defined as the approval of a discretionary permit or entitlement by the County of Tuolumne, including but not limited to, Variance, Conditional Use Permit, Site Development Permit, Site Review Permit, Development Agreement, Planned Unit Development Permit, Final Subdivision Map and Parcel Map. Approval of ministerial permits or entitlements, such as a Building Permit, Septic Permit, Well Permit, lot merger, lot line adjustment, or resubdivision resulting in four or fewer parcels, does not constitute development. Development does not include routine repair and maintenance activities.

Development Fee

A Development Fee is a fee, also called an impact fee, levied on the developer of a project by a city, county, or other public agency as compensation for otherwise-unmitigated impacts the project will produce. California Government Code Section 66000, et seq, specifies that development fees shall not exceed the estimated reasonable cost of providing the service for which the fee is charged. To lawfully impose a development fee, the public agency must verify its method of calculation and document proper restrictions on use of the fund. (See "Impact Fee.")

Development Rights

Development rights mean the right to develop land by a land owner who maintains fee-simple ownership over the land or by a party other than the owner who has obtained the rights to develop. Such rights usually are expressed in terms of density allowed under existing zoning. For example, one development right may equal one unit of housing or may equal a specific number of square feet of gross floor area in one or more specified zoning districts.

Diameter at Breast Height (dbh)

Diameter at breast height is a standard measure of tree size equal to the trunk diameter measured in inches at a height of 4 1/2 feet above the ground level on the uphill side of the tree.

Dilapidated

Dilapidated refers to a housing unit which exhibits severe defects of exterior wall, foundation, roof, chimney and doorway, and no longer provides safe shelter. Such units may require demolition if cost of rehabilitation exceeds subsequent value of structure.

**Disadvantaged Legacy Community**

A Disadvantaged Legacy Community means a community with an annual median household income that is less than 80 percent of the statewide annual median household income that is a geographically isolated community that is inhabited with no less than 10 dwellings adjacent or in close proximity to one another and that has existed for at least 50 years.

Discontiguous Water Systems

Discontiguous water systems are water systems that serve geographically separate areas with no direct infrastructure connections. (BOSPC)

Discourage

Discourage means to advise or persuade to refrain from.

Distinctive Communities Scenario

Distinctive Communities Scenario means communities are separate and distinct with urban development centralized within the urban development boundaries of a community with rural development radiating outward to the defined community boundaries. Surrounding rural development serves as buffers between communities to keep the communities separate and distinct.

Discretionary Decision

Discretionary decision is a term used in the California Environmental Quality Act (CEQA), which means an action taken by a governmental agency which calls for the exercise of judgment in deciding whether to approve and/or how to carry out a project.

District

District means (1) An area of a city or county that has a unique character identifiable as different from surrounding areas because of distinctive architecture, streets, geographic features, culture, landmarks, activities, or land uses. (2) A portion of the territory of a city or county within which uniform zoning regulations and requirements apply; a zone. (3) An agency of the state, formed pursuant to general law or special act, for the local performance of governmental or proprietary functions within limited boundaries, and which meet the definitions, limitations and exclusions found in Section 56036 of the California Government Code.

Diversion

Diversion means the direction of water in a stream away from its natural course. For example, a diversion that removes water from a stream for human use.

Diversity

Diversity means differences among otherwise similar elements that give them unique forms and qualities. For example, housing diversity can be achieved by differences in unit size, or cost.

Dwelling Unit

Dwelling unit means a room or group of rooms, including sleeping, eating, cooking and sanitation facilities, but not more than one kitchen, which constitutes an independent housekeeping unit, occupied or intended for occupancy by one household. Dwelling unit does not include a recreational vehicle.

**Earth-tone (color)**

Earth-tone color is a color that is similar to that of the sky, native vegetation or native soils and stones occurring in Tuolumne County. These colors include, but are not limited to various shades of tans and browns, greens, grays, brick red, and sky blue.

Easement

Easement is usually the right to use property owned by another for specific purposes or to gain access to another property. For example, utility companies often have easements on the private property of individuals to be able to install and maintain utility facilities.

Easement, Conservation

A conservation easement is a tool for acquiring open space with less than full-fee purchase, whereby a public agency buys only certain specific rights from the land owner. These may be positive rights (providing the public with the opportunity to hunt, fish, hike, or ride over the land) or they may be restrictive rights (limiting the uses to which the land owner may devote the land in the future.)

Ecology

Ecology means the interrelationship of living things to one another and their environment; the study of such interrelationships.

Economic Base

Economic Base is the theory that essentially holds that the structure of the economy is made up of two broad classes of productive effort--basic activities which produce and distribute goods and services for export to firms and individuals outside a defined localized economic area, and nonbasic activities whose goods and services are consumed at home within the boundaries of the local economic area. Viewed another way, basic activity exports goods and services and brings new dollars into the area; non-basic activity recirculates dollars within the area.

Economic Development

Economic development is the process by which human, financial, capital, physical, and natural resources are mobilized to produce marketable goods and services.

Economic Development Authority (EDA)

The Economic Development Authority (EDA) is a Joint Powers Authority (JPA) charged with the responsibility of performing economic development functions for the County of Tuolumne and the City of Sonora.

Employment Development Department (EDD)

The Employment Development Department (EDD) is an agency of the State of California that prepares annual estimates of wage and salary employment by industry from employer reports.

Ecosystem

An ecosystem is an interacting system formed by a biotic community and its physical environment.

Egress

Egress is a means of exiting a site or area.

**Eminent Domain**

Eminent domain is the right of a public entity to acquire private property for public use by condemnation, and the payment of just compensation.

Emission Standard

Emission standard is the maximum amount of pollutant legally permitted to be discharged from a single source, either mobile or stationary.

Encourage

Encourage means to stimulate or foster a particular condition through direct or indirect action by the private sector or government agencies.

Endangered Species

An endangered species is a species of animal or plant that is considered to be endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes as defined in Sections 670.2 or 670.5, Title 14, California Administrative Code relative to the California Endangered Species

Engineering Study of Soils and Geology

An engineering study is a report prepared by a California Registered Civil Engineer or a California Registered Geologist. This report shall include an adequate description of the soils and geology of the site, conclusions and recommendations regarding the effect of soil or geologic conditions on future development and recommended design criteria if clearly identifiable hazards are noted.

Enhance

Enhance means to improve existing conditions by increasing the quantity or quality of beneficial uses or features.

Entrepreneur

An entrepreneur is one who organizes, manages, and assumes the risks of a business or enterprise.

Ephemeral drainage

Ephemeral drainage is a dry channel throughout most of the year, bearing water only during and immediately after a rain.

Environment

Environment is defined under the California Environmental Quality Act (CEQA) as "the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, mineral, flora, fauna, noise, and objects of historic or aesthetic significance."

Environmental Impact Report (EIR)

Environmental Impact Report is a detailed evaluation of the effect upon a jurisdiction of a project (such as a General Plan Amendment or permit for a shopping center) as required by the California Environmental Quality Act (CEQA). The report, which is circulated among citizens and government agencies for comment, identifies potential significant impacts and their effects, reviews mitigation measures proposed as part of the project to minimize those impacts, and discusses possible alternatives to the proposed project. The EIR is intended to ensure that a proposed project takes into consideration all factors and is implemented in a way that provides the most benefits and creates the least adverse impacts possible.

**Environmental Impact Statement (EIS)**

An Environmental Impact Statement is a study prepared under the National Environmental Policy Act (NEPA) to address the effect of development proposals and other major actions which significantly affect the environment.

Erosion

Erosion means (1) The loosening and transportation of rock and soil debris by wind, rain, or running water. (2) The gradual wearing away of the upper layers of the earth.

Evacuation Route

An evacuation route is a road network provided to allow persons to withdraw from an area threatened by a disaster, such as a flood or wildland fire.

Exaction

Exaction is a contribution or payment required as an authorized precondition for receiving a development permit; usually refers to mandatory dedication (or fee in lieu of dedication) requirements found in many subdivision regulations.

Expansive Soils

Expansive soils are soils which swell when they absorb water and shrink as they dry.

Extremely Low-Income Household

Extremely Low-Income Household means a household with an annual income no greater than 30 percent of the area median family income adjusted by household size, as determined by a survey of incomes conducted by a city or a county, or in the absence of such a survey, based on the latest available eligibility limits established by the U.S. Department of Housing and Urban Development (HUD).

Facade Easement

A facade easement is an agreement between the owner of an historic structure or cultural resource and a government agency or preservation organization pursuant to which the agency or organization is given the right to review and approve changes to the exterior of the historic structure or resource before such changes may be sought or commenced. In exchange for granting a facade easement, the property owner may receive tax benefits in the form of a charitable contribution for conservation purposes.

Farm Stay

Farm Stay means a farm or ranch which produces agricultural products as its primary source of income and which provides overnight transient accommodations as an accessory use to the commercial agricultural use so that members of the public may experience a rural lifestyle. Food service is limited to registered guests with the price of food included in the price of the overnight transient occupancy accommodation. The establishment can have no more than six guest bedrooms.

Farmers Home Administration (FmHA)

Farmers Home Administration is a federal agency providing loans and grants for improvement projects and low-income housing in rural areas.

Fast Track Project Review

The fast track project review is a process of prioritizing development projects which will result in job creation/expansion and business retention.

**Fault**

Fault means a fracture in the earth's crust forming a boundary between rock masses that have shifted. Because rock in fault zones is crushed, even under static conditions, fault rupture zones are prone to ground water seepage and settlement problems.

Fault, Active

Active fault means a fault that has moved recently and which is likely to move again. For planning purposes, "active fault" is usually defined as one that shows movement within the last 11,000 years and can be expected to move within the next 100 years.

Fault, Capable

Capable fault means either an active or potentially active fault which is capable of generating an earthquake which could cause significant damage to structures in proximity to the fault.

Fault, Inactive

Inactive fault means a fault which shows no evidence of movement in recent geologic time and no potential for movement in the relatively near future.

Fault, Potentially Active

Potentially active fault means (1) a fault that had its latest movement within the Quaternary Period (the last 2,000,000 years) but before the Holocene Epoch (the last 11,000 years); (2) a fault which, because it is judged to be capable of ground rupture or shaking, poses an unacceptable risk for a proposed structure.

Fault Zone

Fault zone means a band along an existing trace where surface rupture has previously occurred in geologic time, and/or where physical movement of the ground surface from a few inches to a few feet can be anticipated to occur in the future. Many of the faults in Tuolumne County are part of the Foothills fault zone, which are a system with multiple branches and sub-parallel fractures that have been located or mapped in a general sense. Due to the scale of previously existing interpretive mapping and the Geotechnical Interpretive Mapping project itself, the locations identified on the Geotechnical Interpretive Maps should be considered approximate.

Feasible

Feasible means capable of being done, executed, or managed successfully from the standpoint of the physical and/or financial abilities of the implementer(s).

Feasible, Technically

Technically feasible means capable of being implemented because the industrial, mechanical, or application technology exists.

Findings

Findings are the result(s) of an investigation and the basis upon which decisions are made. Findings are used by government agents and bodies to explain action taken by the entity.

**Fire Hazard Area**

A fire hazard area is one where, due to slope, fuel, weather, or other fire-related conditions, the potential loss of life and property from a fire necessitates special fire protection measures and planning before development occurs.

Fire Prevention

Fire prevention is practices designed to eliminate fire starts.

Fire Protection

Fire protection refers to measures designed to help preserve life and property in the event of a fire.

Fire Protection District

A fire protection district is a governmental agency established to provide life and property fire protection within their respective jurisdiction.

Fire-resistive

Fire-resistive means able to withstand specified temperatures for a certain period of time, such as a one-hour fire wall; not fireproof.

Fire Suppression

Fire suppression is planning, operations, and support services utilized to extinguish a wildland or structural fire.

First Responder Medical Aid

First responder medical aid is a program which allows Tuolumne County Fire Department personnel who have received training in emergency medical aid to provide care for patients until Emergency Medical Technicians arrive.

Fiscal Impact Analysis

Fiscal Impact Analysis is a projection of the direct public costs and revenues resulting from population or employment change to the local jurisdiction(s) in which the change is taking place. Enables local governments to evaluate relative fiscal merits of general plans, specific plans, or projects.

Flood, 100 Year

100 Year Flood means the magnitude of a flood expected to occur on the average every 100 years, based on historical data. The 100-year flood has a 1/100, or one percent, chance of occurring in any given year.

Flood Damage Prevention Ordinance

The Flood Damage Prevention Ordinance is an ordinance adopted by Tuolumne County to provide regulations regarding the ability to develop property within special flood hazard areas, as delineated on Flood Insurance Rate Maps. Adoption of this Ordinance is a requirement of the Federal Emergency Management Agency to qualify for the National Flood Insurance Program.

Flood, Flooding or Flood Water

A general and temporary condition of partial or complete inundation of normally dry land areas from the unusual and rapid accumulation or runoff of surface water.

**Flood Hazard Area, Special**

The special flood hazard area is an area having the probability of being inundated by a one hundred-year flood, and shown on a Flood Insurance Rate Map for Tuolumne County as Zone A or AE.

Flood hazard areas

Flood hazard areas are those areas subject to inundation.

Flood Insurance Rate Map (FIRM)

The Flood Insurance Rate Map (FIRM) is the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to Tuolumne County.

Floodplain

The Floodplain is the relatively level land area on either side of the banks of a stream regularly subject to flooding. That part of the flood plain subject to a one percent chance of flooding in any given year is designated as an "area of special flood hazard" by the Federal Insurance Administration.

Floodplain, 100 Year

100-year floodplain means an area that has a one percent chance of being flooded in any given year. Over the long term, the area will be covered with flood waters on an average of once every 100 years.

Floodplain Management

Floodplain management regulation and regulatory method of flood control. The floodplain management regulation and regulatory method of flood control is the use of zoning ordinances, subdivision regulations, building codes, health regulations, and special purpose ordinances (such as the "Flood Damage Prevention Ordinance").

Floodproofing

Floodproofing is any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents. Wet and dry flood proofing are the two basic types of floodproofing.

Floodproofing, dry

Dry floodproofing is measures (relocation, elevation, barriers) taken to keep the structure dry.

Floodproofing, wet

Wet floodproofing allows water to enter the structure where changes have been made to minimize any damages due to water. Proper wet floodproofing leaves only cleaning up after the flood waters recede.

Floor-Area-Ratio (FAR)

Floor-area-ratio is the ratio of the gross building square footage permitted on a parcel to the square footage of the parcel. For example, on a parcel with 10,000 square feet of land area, an FAR of 1.00 will allow 10,000 gross square feet of building floor area to be built, regardless of the number of stories in the building, e.g., 5,000 square feet per floor on two floors or 10,000 square feet on one floor. On the same parcel, an FAR of 0.50 would allow 5,000 square feet of floor area and an FAR of 0.25 would allow 2,500 square feet.

**Forest Practice Rules**

Forest practice rules are the provisions that govern commercial timber production as regulated by the State Board of Forestry and administered by the California Department of Forestry and Fire Protection (CAL FIRE). Special forest practice rules may be proposed by Counties to modify the general rules and address local concerns.

Freeway

A freeway is a high-speed, high-capacity, limited-access transportation facility serving regional and county wide travel.

Friction Factor

Friction factor is a constraint applied in a traffic model to introduce an approximation of conditions that exist on streets in the city or county. These conditions reduce the speed of traffic and the desirability of specific links in the network upon which the traffic model distributes trips. Examples are, frequency of low-speed curves, frequency of driveways, narrowness of lanes, and lack of turning lanes at intersections.

Fuelbreak

A fuelbreak is an area where vegetation has been manipulated to reduce the rate of wildland fire spread.

Fuel Reduction

Fuel reduction is the reduction of natural vegetation for the purpose of reducing the structure and amount of fuel for wildland fire.

Gateway

A gateway is a point along a roadway entering a community or county at which a motorist gains a sense of having left the environs and of having entered the community or county.

General Plan

General Plan means a comprehensive, long-term framework for the physical development of a jurisdiction, required by State law, consisting of a statement of development policies and the proposals to implement those policies, together with appropriate diagrams. The General Plan must address at a minimum the following seven issues or elements: land use, circulation, housing, conservation, open space, safety and noise. Optional issues of concern to the County may be included. All development regulations, such as zoning, and physical improvement projects, must be consistent with the policies of the General Plan. The General Plan can be amended and should be reviewed and updated on a regular basis.

Geographic Information System (GIS)

The Geographic Information System (GIS) is an integrated computer system for the collection, storage, manipulation and presentation of geographical data.

Geologic Review

Geologic review is the analysis of geologic hazards, including all potential seismic hazards, surface ruptures, liquefaction, landsliding, mudsliding, and the potential for erosion and sedimentation.

Geological

Geological means pertaining to rock or solid matter.

**Goal**

Goal means the ultimate purpose of an effort stated in a way that is general in nature and incapable of measurement.

Granny Flat

A granny flat is a self-contained living unit, in addition to, the primary residential unit on a single lot. (See "Secondary dwelling unit.")

Greenhouse Gas

Greenhouse Gas means any of various gaseous compounds, including carbon dioxide, methane, nitrous oxide, chlorofluorocarbons, hydro chlorofluorocarbons and halons, that absorb infrared radiation, trap heat in the atmosphere, and contribute to the greenhouse effect.

Groundwater

Groundwater is water under the earth's surface that supplies wells, streams and rivers.

Groundwater Recharge

Groundwater recharge is the natural process of infiltration and percolation of rainwater from land areas or streams through permeable soils into water-holding rocks which provide underground storage ("aquifers").

Group Quarters

Group quarters include all persons not living in households. Two general categories of group quarters are recognized: (1) institutionalized persons and (2) other persons in group quarters which includes all persons who live in group quarters other than institutions or persons who live in living quarters when there are 10 or more unrelated persons living in the unit. Also included are persons residing in certain other types of living arrangements regardless of the number of people sharing the unit.

Guest Ranch

Guest ranch means a farm or ranch where the primary use is a commercial agricultural operation and where members of the public may stay for compensation to experience a rural lifestyle as an accessory use to the commercial agricultural use and where the guest facilities, including but not limited to the lodge, bunkhouse or cottages, recreational activities, food and beverage service, and entertainment, are limited to use or consumption by registered overnight guests of the guest ranch.

Guidelines

Guidelines are general statements of policy direction.

Habitat

Habitat is the physical location or type of environment in which an organism or biological population lives or occurs.

Hazardous Material

Hazardous Material is any substance that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. The term includes, but is not limited to, hazardous substances and hazardous wastes.



Hazardous Materials Business Plan

The Hazardous Materials Business Plan is a plan required to be developed by each business which handles hazardous materials in reportable quantities pursuant to Chapter 6.95 (Sections 25500 et sequitur) of the California Health and Safety Code. The Plan generally includes a hazardous material inventory, site sketch, emergency response plans, and training in hazardous material handling.

Hazardous Materials Disclosure

The Hazardous Materials Disclosure is an inventory form for hazardous materials required to be completed by businesses and submitted to the Tuolumne County Environmental Health Division for determination of the need to prepare a Hazardous Materials Business Plan.

Hazardous Waste

Hazardous waste means a waste, or combination of wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may do either of the following: (1) Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness. (2) Pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

Hazardous Waste, Household

Household Hazardous Waste are those wastes resulting from products purchased by the general public for household use which, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may pose a substantial known or potential hazard to human health or the environment when improperly treated, disposed, or otherwise managed.

Hazardous Waste Element, Household (HHWE)

The Household Hazardous Waste Element (HHWE) is one element of the County Integrated Waste Management Plan prepared pursuant to Section 41510 of the California Public Resources Code which identifies programs for the safe collection, recycling, treatment, and disposal of hazardous wastes generated by households which should be separated from the waste stream.

Helitack

Helitack is a wildland firefighting unit which utilizes helicopter transport or assault, and includes helicopter support services.

Heritage Corridor

Heritage Corridor means a historic trade route, water distribution route, transportation route, conveyance system, or trail, that is lined with visible cultural resources, or passes through historic or design review areas, or is representative of a major period in Tuolumne County or California history.

Heritage tourism

Heritage tourism is tourism generated by the heritage and cultural resources of the County.

Heritage Tourism Program

The Heritage Tourism Program is a National Trust for Historic Preservation initiative that provides technical and monetary support for tourism programs that focus on preserving and utilizing an area's cultural resources to attract tourists and tourist revenues.

**High Occupancy Structures**

High occupancy structures are those which are capable of being occupied by a large number of persons at any one time. Examples of high occupancy structures include schools, theaters, large stores, health care facilities, and hotels or apartment houses.

Highway

A highway is a high-speed, high-capacity transportation facility serving regional and county wide travel.

Historic; Historical

Historical refers to a historic building or site that is noteworthy for its significance in local, state, or national history or culture, its architecture or design, or its works of art, memorabilia, or artifacts dating from and after 1750.

Historic Preservation

Historic Preservation is the preservation of historically significant structures, features and neighborhoods.

Home Occupation

Home occupation means any activity conducted for economic gain entirely within a dwelling or private garage, and carried out exclusively by the inhabitants thereof and which is merely incidental to the residential use of the parcel and does not change its residential character or appearance. (See "Cottage Industry".)

Household

Household means all the persons--related or unrelated--who occupy a single housing unit. Persons not living in households are classified as living in group quarters.

Household, Low-Income

A low-income household means a household with an annual income no greater than 80 percent of the area median family income adjusted by household size, as determined by a survey of incomes conducted by a city or a county, or in the absence of such a survey, based on the latest available eligibility limits established by the U.S. Department of Housing and Urban Development (HUD) for the Section 8 housing program.

Household, Moderate-income

A moderate-income household is a household with an annual income between the lower income eligibility limits and 120 percent of the area median family income adjusted by household size, usually as established by the U.S. Department of Housing and Urban Development (HUD) for the Section 8 housing program.

Householder

Householder is the head of the household.

Households, Market-Rate

Market-rate households are households who, on the basis of their income level, have the financial capability to meet housing needs without sacrificing other essential needs and without governmental assistance.

Households, Number of

Number of households is the count of all year-round housing units occupied by one or more persons. The concept of household is important because the formation of new households generates the demand for housing. Each new household formed creates the need for one additional housing unit or requires that one existing housing unit



be shared by two households. Thus, household formation can continue to take place even without an increase in population, thereby increasing the demand for housing.

Households, Overcrowding

Overcrowding households are households which have more than one person per room; excluding bathrooms.

Household, Very Low-income

A very low-income household is a household with an annual income no greater than 50 percent of the area median family income adjusted by household size, as determined by survey of incomes conducted by a city or a county, or in the absence of such a survey, based on the last available eligibility limits established by the U.S. Department of Housing and Urban Development (HUD) for the Section 8 housing program.

Housing Authority

A housing authority is a local housing agency established in State law, subject to local activation and operation. Originally intended to manage certain federal subsidies, but vested with broad powers to develop and manage other forms of affordable housing.

Housing and Community Development Department of the State of California (HCD)

HCD is the State agency that has principal responsibility for assessing, planning for, and assisting communities with affordable housing.

Housing Element

Housing Element is one of seven State-mandated elements of a local general plan; it assesses the existing and projected housing needs of all economic segments of the community, identifies potential sites adequate to provide the amount and kind of housing needed, and contains adopted goals, policies, and implementation programs for the preservation, improvement, and development of housing. Under the California Government Code, Housing Elements must be updated every five years.

Housing Units, Seasonal, Recreational, or Occasional Use

Seasonal, recreational, or occasional use housing units include vacant housing units used or intended for use only in certain seasons or for weekend or other occasional use throughout the year.

Housing Units, Vacant

A vacant housing unit is a housing unit that is vacant if no one is living in it at the time of enumeration, unless its occupants are only temporarily absent. Units temporarily occupied at the time of enumeration entirely by persons who have a usual residence elsewhere are also classified as vacant.

Housing and Urban Development, U.S. Department of (HUD)

HUD is a cabinet-level department of the federal government which administers housing and community development programs.

Housing Unit

A housing unit is the place of permanent or customary abode of a person or family. A housing unit may be a single family dwelling, a multi-family dwelling, a condominium, a modular home, a mobilehome, a cooperative, or any other residential unit considered real property under State law. A housing unit has, at least, cooking facilities, a bathroom, and a place to sleep. It also is a dwelling that cannot be moved without substantial damage or unreasonable cost. (See "Dwelling Unit, and "Household.")

**Hydrocarbons**

Hydrocarbons are a family of compounds containing carbon and hydrogen in various combinations. They are emitted into the atmosphere from manufacturing, storage and handling, or combustion of petroleum products and through natural processes. Certain hydrocarbons interact with nitrogen oxides in the presence of intense sunlight to form photochemical air pollution.

Identity

Identity is a consistent quality that makes a community, place, area, or building unique and gives it a distinguishing character.

Image

Image means the mental picture by impression of a community or place taken from memory and held in common by members of the community.

Impact

Impact is the effect of any direct man-made actions or indirect repercussions of man-made actions on existing physical conditions.

Impact Fee

Impact fee is a fee, also called a development fee, levied on the developer of a project by a city, county, or other public agency as compensation for otherwise-unmitigated impacts the project will produce. California Government Code Section 66000, *et seq*, specifies that the development fees shall not exceed the estimated reasonable cost of providing the service for which the fee is charged. To lawfully impose a development fee, the public agency must verify its method of calculation and document proper restrictions on use of the fund.

Impaired Waterway

An impaired waterway is a body of water listed under Section 303(d) of the Federal Clean Water Act as having environmentally-caused damage, such as high pesticide level, which results in the elimination of a beneficial use, such as fishing.

Impervious Surface

An impervious surface is a surface through which water cannot penetrate, such as a roof, road, sidewalk, and paved parking lot. The amount of impervious surface increases with development and establishes the need for drainage facilities to carry the increased runoff.

Implementation Program

Implementation program means an action, procedure, measure or technique that carries out a General Plan policy.

Improvement

Improvement means a change in a parcel of land that adds value to the real property, such as the addition of a structure, utility or landscaping.

Incidental take

Incidental take refers to the disturbance or removal of a plant or animal species listed or designated as a candidate for listing under the State or Federal Endangered Species Acts where such take is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.

**Income**

Income is salary and/or wages, interest from assets, tips, pensions, and assistance grants.

Income Limits

Income limits are as defined by the Department of Housing and Community Development:

- Extremely Low: Income not exceeding 30% of the median family income of Tuolumne County.
- Very Low: Income not exceeding 50% of the median family income of Tuolumne County.
- Other Low: Income between 50% and 80% of the median family income of Tuolumne County
- Moderate: Income between 80% and 120% of the median family income of Tuolumne County.
- Above Moderate: Income above 120% of the median family income of Tuolumne County.

Incorporation

Incorporation is the creation of a new city.

Incubator Space

Incubator space means retail or industrial space that is affordable to new, low-margin businesses.

Industrial

Industrial means the manufacture, production, and processing of consumer goods. Industrial is often divided into "heavy industrial" uses, such as construction yards, quarrying, and factories; and "light industrial" uses, such as research and development and less intensive warehousing and manufacturing.

Industry, Basic

Basic industry is the segment of economic activity that brings dollars to a region from other areas. Traditional examples are manufacturing, mining and agriculture. The products of all of these activities are exported (sold) to other regions. The money thus brought into the local economy is used to purchase locally-provided goods and services as well as items that are not available locally and that must be imported from other regions. Other, less traditional examples of basic industry are tourism, higher education, and retirement activities that also bring new money into a region.

Industry, Non-basic

Non-basic industry is the segment of economic activity that is supported by the circulation of dollars within a region. Examples are the wholesale, retail, and service functions that supply goods and services to local sources of demand such as businesses, public agencies, and households.

Infill Development

Infill development means development of vacant land (usually individual lots or left-over properties) within areas that are already largely developed.

Infrastructure

Infrastructure means public services and facilities, such as sewage disposal systems, water supply systems, other utility systems, and roads.

Ingress

Ingress is a means of entering a site or area.

**Insurance Services Office (ISO)**

The Insurance Services Office (ISO) is an organization which provides rating and insurance underwriting information to insurance companies throughout the country. An ISO survey evaluates the fire protection and fire defense systems of a particular jurisdiction. The results of the survey are then used as a basis for the establishment of fire insurance rates in the area.

Inter-agency

Inter-agency indicates co-operation between or among two or more discrete agencies in regard to a specific program.

Interest, Fee

Fee interest entitles a land owner to exercise complete control over use of land, subject only to government land use regulations.

Intermittent Stream

An intermittent stream is a stream channel that carries water for at least thirty (30) days after the last major rain of the season and is dry a large part of the year. This type of channel receives groundwater flow when it is available.

Inundation

Inundation means covered or overwhelmed with water.

Issues

Issues are important unsettled community matters or problems that are identified in a community's general plan and dealt with by the plan's goals, policies, and implementation programs.

Jobs/Housing Balance; Jobs/Housing Ratio

Jobs/housing balance; and jobs/housing ratio means the availability of affordable housing for employees. The jobs/housing ratio divides the number of jobs in an area by the number of employed residents. A ratio of 1.0 indicates a balance. A ratio greater than 1.0 indicates a net in-commute; less than 1.0 indicates a net out-commute.

Joint Powers Authority (JPA)

Joint Powers Authority is a legal arrangement that enables two or more units of government to share authority in order to plan and carry out a specific program or set of programs that serves both units.

Jurisdictional Wetlands

Jurisdictional wetlands are those areas subject to Section 404 of the Clean Water Act (aka The Federal Water Pollution Control Act, 33USC 1251-1387) and areas subject to Sections 1600-1607 of the California Fish and Game Code.

Land Banking

Land banking is the purchase of land by a local government for use or resale at a later date. "Banked lands" can be used for development of affordable housing, expansion of parks, and development of industrial and commercial centers. Federal rail-banking law allows railroads to bank unused rail corridors for future rail use while allowing interim use as trails.

**Landmark**

Landmark (1) Refers to a building, site, object, structure, or significant tree, having historical, architectural, social, or cultural significance. (2) A visually prominent or outstanding structure or natural feature that functions as a point of orientation or identification.

Landscaping

Landscaping is planting--including trees, shrubs, and ground covers--suitably designed, selected, installed, and maintained as to enhance a site or roadway permanently.

Landslide

Landslide is a general term for a falling mass of soil or rocks.

Land Trust

A land trust is a private, nonprofit organization that, as all or part of its mission, actively works to conserve land by undertaking or assisting in land or conservation easement acquisition, or by its stewardship of such land or easement

Land Use

Land use means the occupation or utilization of land for any human activity or any purpose defined in the General Plan.

Land Use Element

A Land Use Element is a required element of the General Plan that uses text and diagrams to designate the future use or reuse of land within a given jurisdiction's planning area. The land use element serves as a guide to the structuring of zoning and subdivision controls, urban renewal and capital improvements programs, and to official decisions regarding the distribution and intensity of development and the location of public facilities and open space.

Land Use Regulation

Land use regulation is a policy, rule or law enacted by the local legislative body for the regulation of any aspect of land use and community resource protection, including, but not limited to zoning, subdivision, and other development requirements, and any other regulation that prescribes the appropriate use of property in the scale, location or intensity of development.

Large Family

A large family is a family of five or more persons.

Lease

A lease is a contractual agreement by which an owner of real property (the lessor) gives the right of possession to another (a lessee) for a specified period of time (term) and for a specified consideration (rent).

Leasehold Interest

Leasehold interest means (1) The interest which the lessee has in the value of the lease itself in condemnation award determination. (2) The difference between the total remaining rent under the lease and the rent the lessee would currently pay for similar space for the same period time period.



Level of Service (LOS) Standard

Level of service (LOS) is a standard used by governmental agencies to measure the quality or effectiveness of a service or the performance of a facility such as police, fire and library service.

Level of Service, Traffic

The traffic level of service means a scale that measures the amount of traffic that can be accommodated on a roadway segment or at an intersection. Traffic levels of service range from A to F, with A representing the highest level of service, as follows:

- *Level of Service A*
- Indicates a relatively free flow of traffic, with little or no limitation on vehicle movement or speed.
- *Level of Service B*
- Describes a steady flow of traffic, with only slight delays in vehicle movement and speed. All queues clear in a single signal cycle.
- *Level of Service C*
- Denotes a reasonably steady, high-volume flow of traffic, with some limitations on movement and speed, and occasional backups on critical approaches.
- *Level of Service D*
- Denotes the level where traffic nears an unstable flow. Intersections still function, but short queues develop and vehicles may have to wait through one cycle during short peaks.
- *Level of Service E*
- Describes traffic characterized by slow movement and frequent (although momentary) stoppages. This type of congestion is considered severe, but is not uncommon at peak traffic hours, with frequent stopping, long-standing queues, and blocked intersections.
- *Level of Service F*
- Describes unsatisfactory stop-and-go traffic characterized by "traffic jams" and stoppages of long duration. Vehicles at signalized intersections usually have to wait through one or more signal changes, and "upstream" intersections may be blocked by the long queues.

Liquefaction

Liquefaction is the transformation of loose water-saturated granular materials (such as sand or silt) from a solid into a liquid state. A type of ground failure that can occur during an earthquake.

Local Agency Formation Commission (LAFCO)

LAFCO is a statutorily-required five-member commission in Tuolumne County that reviews and evaluates all proposals for changes in organization, such as formation of special districts, incorporation of cities, annexation to special districts or cities, consolidation of districts, and merger of districts with cities.

Local Transportation Commission (LTC)

The Local Transportation Commission (LTC) is also known as the Tuolumne County and Cities Area Planning Council (TC/CAPC) and designated under Section 29532(b) of the California Government Code. The LTC acts as the lead planning and administrative agency for transportation projects and programs in Tuolumne County.

Long Term Care Facility

Long Term Care Facility means any skilled nursing facility, intermediate care facility, or congregate living health facility licensed pursuant to the provisions of the California Health and Safety Code.

**Lot**

A lot is a parcel of land used or intended for one use or a group of uses. (See "Site.")

Maintain

Maintain means to keep in an existing state.

Mandatory Element

Mandatory Element is a component of the General Plan required by State Law. The California Government Code requires that a General Plan include elements dealing with seven subjects--circulation, conservation, housing, land use, noise, open space, and safety--and specifies to various degrees the information to be incorporated in each element.

May

May means that which is permissible.

Medi-flight

Medi-flight means medical evacuation using a helicopter to transport injured persons from remote locations, which are inaccessible by ground ambulance, or to distant hospital facilities, which would require excessive time by ground ambulance.

Mello-Roos Bonds

Mello-Roos Bonds are locally issued bonds that are repaid by a special tax imposed on property owners within a "community facilities" district established by a governmental entity. The bond proceeds can be used for public improvements and for a limited number of services. The name Mello-Roos is derived from the program's legislative authors.

Mercalli Intensity Scale

Mercalli Intensity Scale is a subjective measure of the observed effects, such as human reactions, structural damage, geologic effects of an earthquake. Expressed in Roman numerals from I to XII.

Microclimate

Microclimate is the climate of a small, distinct area, such as a street or a building's courtyard which can be favorably altered through functional landscaping, architecture, or other design features.

Mills Act

The Mills Act is State legislation that provides an alternative tax formula for assessing and taxing qualified historic properties if the owner is willing to restore and maintain the property.

Mineral Occurrence

A mineral occurrence means any ore or economic mineral in any concentration found in bedrock or as float; especially a valuable mineral in sufficient concentration to suggest further exploration.



Mineral Resource

A mineral resource is a concentration of naturally occurring solid, liquid, or gaseous material in or on the Earth's crust in such form and amount that economic extraction of a commodity from the concentration is currently or potentially feasible.

Mineral Resource Classification

A mineral resource is land on which known deposits of commercially viable mineral or aggregate deposits exist. This classification is applied to sites determined by the State Division of Mines and Geology as being a resource of regional significance, and is intended to help maintain the quarrying operations and protect them from encroachment of incompatible land uses.

Mineral Resources, Large Scale

Prospecting for, or the extraction of, minerals for commercial purposes and the removal of overburden in total amounts of one thousand cubic yards or greater, or that disturbs more than one acre.

Mineral Resources, Small Scale

Prospecting for, or the extraction of, minerals for commercial purposes and the removal of overburden in total amounts of less than one thousand cubic yards in any one location of one acre or less.

Minimize

Minimize means to reduce or lessen, but not necessarily to eliminate.

Mining

Mining is the act or process of extracting resources, such as coal, oil, or minerals, from the earth.

Mineral Preserve Zone (-MPZ)

Mineral Preserve Zone is an overlay applied on other (primary) land use designations, whose purpose is to protect lands best suited for mineral or aggregate extraction from the encroachment of incompatible land uses and to preserve such land for resource production.

Ministerial Decision

A ministerial decision is an action taken by a governmental agency which follows established procedures and rules and does not call for the exercise of judgment in deciding whether to approve a project.

Mitigate

Mitigate means to ameliorate, alleviate, or avoid to the extent reasonably feasible.

Mixed-use

Mixed-use is a land use designation which allows properties to have various uses, such as office, commercial, institutional, and residential, combined in a single building or on a single site in an integrated development project with significant functional inter-relationships and a coherent physical design. A "single site" may include contiguous properties.

MRZ-2a

MRZ-2a is a classification for areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present. As shown on the California Mineral Land Classification Diagram located at the end of the Mineral Resource Section of the Natural Resources Element, MRZ-2 is divided on the basis of both degree of knowledge and economic factors. Areas classified as MRZ-2a contain discovered mineral



deposits that are either measured or indicated reserves as determined by such evidence as drilling records, sample analysis, surface exposure, and mine information. Land included in the MRZ-2a category is of prime importance because it contains known economic mineral deposits.

MRZ-2b

MRZ-2b is a classification for areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. Areas classified as MRZ-2b contain discovered mineral deposits that are either inferred reserves as determined by limited sample analysis, exposure, and past mining history or are deposits that presently are sub-economic. Further exploration work and/or changes in technology or economics could result in upgrading areas classified MRZ-2b to MRZ-2a.

MRZ-3a

MRZ-3a is a classification for areas containing known mineral occurrences of undetermined mineral resource significance. Further exploration work within these areas could result in the reclassification of specific localities into MRZ-2a or MRZ-2b categories. As shown on the California Mineral Land Classification Diagram located in the Natural Resources Element, MRZ-3 is divided on the basis of knowledge of economic characteristics of the resources.

Multiplier Effect

The multiplier effect is the recirculation of money through the economy which multiplies its impact on jobs and income. For example, money paid as salaries to industrial and office workers is spent on housing, food, clothes and other locally-available goods and services. This spending creates jobs in housing construction, retail stores (e.g., grocery and drug stores) and professional offices. The wage paid to workers in those industries is again re-spent, creating still more jobs. Overall, one job in basic industry is estimated to create approximately one more job in non-basic industry.

Must

Must means that which is mandatory.

National Ambient Air Quality Standards

The National Ambient Air Quality Standards are the prescribed level of pollutants in the outside air that cannot be exceeded legally during a specified time in a specified geographical area.

National Environmental Policy Act (NEPA)

NEPA is an act passed in 1970 establishing federal legislation for national environmental policy, a council on environmental quality, and the requirements for environmental impact statements.

National Fire Protection Association (NFPA)

The National Fire Protection Association (NFPA) is an organization formed to promote the science and improve the methods of fire protection and prevention, electrical safety, and other related safety goals; to obtain and circulate information on these subjects; and to secure the cooperation of its members and the public in establishing proper safeguards against loss of life and property. Compliance with NFPA documents is required in the Tuolumne County Fire Safety Standards (Tuolumne County Ordinance Code, Chapter 15.20).

National Flood Insurance Program

The National Flood Insurance Program is a federal program which authorizes the sale of federally subsidized flood insurance in communities where such flood insurance is not available privately.

**National Historic Preservation Act**

The National Historic Preservation Act is a 1966 federal law that established the National Register of Historic Places and the Advisory Council on Historic Preservation, and which authorized grants-in-aid for preserving historic properties.

National Register of Big Trees

The National Register of Big Trees is a publication by the American Forester's Association which includes the Bennett Juniper and the Douglas Picnic Area's Jeffrey Pine.

National Register of Historic Places

The National Register of Historic Places is the official list, established by the National Historic Preservation Act, of sites, districts, buildings, structures, and objects significant in the nation's history or whose artistic or architectural value is unique.

National Register Designation 1 - listed on the National Register

National Register designation 2 - determined eligible for listing by formal process involving federal agencies.

National Register designation 3-appears to be eligible for listing in the judgment of the person completing the form

National Register designation 4-might become eligible for listing

National Register designation of 5 - ineligible for listing, but of local interest and eligible for the Tuolumne County Register of Cultural Resources.

Natural State

Natural state means the condition existing prior to development.

Necessary

Necessary means essential or required.

Need

Need means a condition requiring supply or relief. The County may act upon findings of need within or on behalf of the community.

New Community

New community means an area designated in the Tuolumne County General Plan for urban development for which a community plan must be prepared and adopted prior to development.

Nitrogen Oxide(s)

Nitrogen oxide(s) is a reddish brown gas that is a byproduct of combustion and ozone formation processes. Often referred to as NOX, this gas gives smog its "dirty air" appearance.

**Noise**

Noise is any sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. Noise, simply, is "unwanted sound."

Noise Attenuation

Noise attenuation means the reduction of the level of noise source using a substance, material, or surface, such as earth berms and/or solid concrete walls.

Noise Contour

Noise contour is a line connecting points of equal noise level as measured on the same scale. Noise levels greater than the 60 L_{dn} contour (measured in dBA) require noise attenuation in conjunction with development of noise sensitive land uses.

Noise Element

Noise Element is one of the seven State-mandated elements of a local general plan; it assesses noise levels of highways and freeways, local arterials, railroads, airports, local industrial plants, and other ground stationary sources, and adopts goals, policies, and implementation programs to reduce the community's exposure to noise.

Noise Sensitive Uses

Noise sensitive uses are those land uses that involve activities where excessive noise levels could cause adverse health effects or disrupt activity. Noise sensitive uses include urban residential land uses, transient lodging, schools, theaters, churches, hospitals, nursing homes and other similar uses.

Noise Source, Stationary

A stationary noise source is any fixed or mobile source not preempted from local control by federal or state regulations. Examples of such sources include agricultural, industrial and commercial facilities, and vehicle movements on private property.

Noise Source, Transportation

Transportation noise source refers to traffic on public roadways, railroad line operations and aircraft in flight. Control of noise from these sources is preempted by federal or state regulations. However, the effects of noise from transportation sources may be controlled by regulating the location and design of adjacent land uses.

Non-attainment

Non-attainment means the condition of not achieving a desired or required level of performance. Frequently used in reference to air quality.

Non-conforming Use

Non-conforming use is a use which was valid when brought into existence, but by subsequent regulation becomes no longer conforming. "Non-conforming use" is a generic term and includes (1) non-conforming structures (by virtue of size, type of construction, location, or proximity to other structures), (2) non-conforming use of a conforming building, (3) non-conforming use of a non-conforming building, and (4) non-conforming use of land. Non-conforming uses are permitted to continue for a designated period of time, subject to certain restrictions.

Nontransient-noncommunity Water System

A Nontransient-noncommunity Water System is a public water system that is not a community water system and that regularly serves at least the same 25 persons over 6 months of the year. An example would be an office



building served by a well that provides water supply to the same group of people daily during working hours. (Section 64400.80 of the California Code of Regulations)

Notice

A Notice is a legal document announcing the opportunity for the public to present their views to an official representative or board of a public agency concerning an official action pending before the agency.

Oak Woodland

A woodland stand with 10% or greater native oak canopy cover.

Open Space Element

An Open Space Element is one of the seven State-mandated elements of a local general plan; it contains an inventory of privately and publicly owned open-space lands, adopted goals, policies, and implementation programs for the conservation and management of open space lands.

Open Area

Open area is any parcel or area of land or water which is essentially unimproved and devoted to a use for the purposes of (1) the preservation of natural resources, (2) the managed production of resources, (3) outdoor recreation, or (4) public health and safety.

Ordinance

An ordinance is a law or regulation set forth and adopted by the County of Tuolumne.

Outdoor Activity Areas

Outdoor activity areas are areas such as, patios, decks, balconies, outdoor eating areas, swimming pool areas, yards of dwellings and other areas which have been designated for outdoor activities and recreation.

Outer Approach Zone

An Outer Approach Zone means airspace in which an air-traffic controller initiates radar monitoring for incoming flights approaching an airport.

Ozone

Ozone is a tri-atomic form of oxygen (O₃) created naturally in the upper atmosphere by a photochemical reaction with solar ultraviolet radiation. In the lower atmosphere, ozone is a recognized air pollutant that is not emitted directly into the environment, but is formed by complex chemical reactions between oxides of nitrogen and reactive organic compounds in the presence of sunlight, and becomes a major agent in the formation of smog.

Parcel

Parcel means a lot, unit or tract of real property which is legally separate from any adjacent property.

Park

A park is an open space lands whose primary purpose is recreation.

Park, Community

A Community Park is land with full public access intended to provide recreation opportunities beyond those supplied by neighborhood parks. Community parks are larger in scale than neighborhood parks but smaller than regional parks.

**Park, Neighborhood**

Neighborhood park means land intended to serve the recreation needs of people living or working within one-half mile radius of the park.

Park, Regional

A regional park is a park typically 150-500 acres in size focusing on activities and natural features not included in most other types of parks and often based on a specific scenic or recreational opportunity.

Patrol Person

Patrol person is a sworn law enforcement officer of the Tuolumne County Sheriff's Department.

Peak Hour/Peak Period

Peak Hour/Peak Period is for any given roadway, a daily period during which traffic volume is highest, usually occurring in the morning and evening commute periods.

Perennial stream

A perennial stream is a stream channel that carries water the year round, being fed by a fairly stable water flow. May be small or large, however when large, it may be referred to as a river.

Performance Standards

Performance standards are regulations that permit uses based on a particular set of standards of operation rather than one particular type of use. Performance standards typically provide specific criteria such as limiting noise, air pollution, fire hazards, wastes, traffic impacts, and visual impact.

Policy

Policy means a specific statement in which the legislative body expresses a clear commitment to take a particular course of action.

Pollutant

Pollutant means any introduced gas, liquid, or solid that makes a resource unfit for its normal or usual purpose.

Pollution

Pollution means the presence of matter or energy whose nature, location, or quantity produces undesired environmental effects.

Pollution, Non-Point

Non-point pollution refers to sources of pollution which are less definable and usually cover broad areas of land, such as agricultural land with fertilizers which are carried from the land by runoff, or automobiles.

Pollution, Point

Point pollution refers to water quality, a discrete source from which pollution is generated before it enters receiving waters, such as a sewer outfall, or an industrial waste pipe.

Poverty Level

Poverty level means, as used by the U.S. Census, families and unrelated individuals classified as being above or below the poverty level based on a poverty index which provides a range of income cutoffs or "poverty



thresholds" varying by size of family, number of children, and age of householder. The income cutoffs are updated each year to reflect the change in the Consumer Price Index.

Prehistoric

Prehistoric means pre 1750.

Preserve

Preserve means (1) An area in which beneficial uses in their present condition are protected; for example, a nature preserve or an agricultural preserve. (See "Agricultural Preserve"), (2) To keep safe from destruction or decay; to maintain or keep intact. (See Maintain)

Principle

Principle is an assumption, fundamental rule, or doctrine that will guide general plan policies, and implementation programs. "Adjacent land uses should be compatible with one another" is an example of a principle.

Principal Dwelling

Principal dwelling means a single family detached dwelling that generally is established first and is the largest dwelling on a parcel.

Program

Program means an action, activity, or strategy carried out in response to adopted policy to achieve a specific goal or objective. Policies and programs establish the "who," "how" and "when" for carrying out the "what" and "where" of goals and objectives.

Pro Rata

Pro rata refers to the proportionate distribution of something to some thing or some group, such as the cost of infrastructure improvements associated with new development apportioned to the users of the infrastructure on the basis of projected use.

Protect

Protect means to maintain and preserve beneficial uses in their present condition as nearly as possible.

Public Agency

Public agency means any city, county, city and county, special district or other political subdivision of the State, including a joint powers entity created pursuant to Chapter 5 (commencing with Section 6500) of Division 7 of Title 1 of the California Government Code.

Public and Quasi-public Facilities

Public and quasi-public facilities means institutional, academic, governmental and community service uses, either publicly owned or operated by non-profit organizations.

Public Sewer System

A public sewer system is a community or regional system for the collection, treatment and disposal of sewage which meets all applicable State and local laws.

**Public Utility**

Public utility means any agency that, under public franchise or ownership, or under certificate of convenience and necessity, or by grant of authority by a governmental agency, provides the public with electricity, gas, heat, steam, communication, transportation, water, sewage collection, or other similar service.

Public Water Distribution System

A Public Water Distribution System is a public water system that is either publicly or privately owned, and distributes water from a common source or sources to multiple residences or facilities. Public water systems which provide water to single or a very small number of facilities, such as transient-noncommunity water systems or nontransient-noncommunity water systems are not considered public water distribution systems. Community water systems, utility districts, private water companies regulated by the Public Utilities Commission (PUC) and similar examples of public water systems are considered public water distribution systems.

Public Water System

A public water system is a system of obtaining water from a groundwater or surface water source, storing, and distributing the water to customers either paying -or non-paying, usually after some sort of treatment to render the water potable. A system that provides water for a total of four or fewer residential households is not considered a public water system. Systems which distribute water to greater than four residential households, community water systems, transient-noncommunity water systems and nontransient-noncommunity water systems are all examples of public water systems.

Qualified Professional

A qualified professional is a professional qualified to perform cultural resource investigations for Tuolumne County as specified in Title 14 of the Tuolumne County Ordinance Code.

Rare, Threatened or Endangered Species

Rare, threatened or endangered species means a species of animal or plant listed in: Sections 670.2 or 670.5, Title 14, California Administrative Code relative to the California Endangered Species Act; or Title 50, Code of Federal Regulations, Section 17.11 or Section 17.2, pursuant to the Federal Endangered Species Act designating species as rare, threatened, or endangered.

Reclamation

Reclamation is the reuse of resources, usually those present in solid wastes or sewage. In surface mining, reclamation means the combined process of land treatment that minimizes water degradation, air pollution, damage to aquatic or wildlife habitat, flooding, erosion, and other adverse effects from surface mining operations so that mined lands are reclaimed to a usable condition which is readily adaptable for alternate land uses and create no danger to public health or safety. The process may extend to affected lands surrounding mined lands, and may require backfilling, grading, resoiling, revegetation, soil compaction, stabilization or other measures.

Recognize

Recognize means to officially (or by official action) identify or perceive a given situation.

Recreation, Active

Active recreation is a type of activity which requires the use of organized play areas including, but not limited to, softball, baseball, football and soccer fields, tennis and basketball courts and various forms of children's play equipment.

**Recreation, Passive**

Passive recreation is a type of activity which does not require the use of organized play areas.

Recreational Facilities

Recreational facilities are structures, buildings, or land improvements that allow for activities for amusement or diversion. Areas may be dedicated for active or passive recreation activities.

Recycle

Recycle is the process of extraction and reuse of materials from waste products

Redevelop

Redevelop means to demolish existing buildings; or to increase the overall floor area existing on a property; or both; irrespective of whether a change occurs in land use.

Regional

Regional pertains to activities or economics at a scale greater than that of a single jurisdiction, and affecting a broad geographic area.

Regional Housing Needs Plan

The Regional Housing Needs Plan is a qualification by a Council of Government (COG) or by HCD of existing and projected housing need, by household income group, for all localities within a region.

Regional Transportation Plan (RTP)

The Regional Transportation Plan (RTP) is prepared pursuant to Chapter 2.5 (Sections 65080 et sequitur) of the California Government Code and serves as the base document for all transportation planning in Tuolumne County. The RTP is updated periodically and establishes policy direction for all transportation projects and programs in the County.

Regulation

Regulation means a rule or order prescribed for managing government.

Rehabilitation, Needing

Needing rehabilitation refers to a housing unit which in its present state endangers the health, safety, or welfare of its occupants; and is economically feasible to repair.

Residential, Multiple Family

Multiple family residential is usually three or more dwelling units on a single site, which may be in the same or separate buildings.

Residential, Single Family

Single family residential is a single dwelling unit on a building site.

Resilience

Resilience is the ability of a social or ecological system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity for self-organization, and the capacity to adapt to stress and change.

**Response Time**

Response time is the time required for emergency equipment (fire, law enforcement, ambulance) to arrive at the scene of an emergency call (when an emergency dispatcher has obtained sufficient information, such as call back number, location, and symptom(s)/type of incident so that a proper dispatch can be determined and made) to arrive at the scene. The time of arrival is defined as the time at which the responding personnel and equipment is not greater than 200 feet from the location of the incident and/or has checked into a staging area.

Restore

Restore means to renew, rebuild, or reconstruct to a former state.

Restrict

Restrict means to check, bound, or decrease the range, scope, or incidence of a particular condition.

Retail Leakage

Retail leakage occurs when members of a community spend money outside that community. For example, purchasing goods in another community forgoes the same purchase that could have been made inside the community.

Retrofit

Retrofit means to add materials and/or devices to an existing building or system to improve its operation or efficiency. Buildings have been retrofitted to use solar energy and to strengthen their ability to withstand earthquakes, for example.

Revolving Loan Fund

A revolving loan fund is usually a government sponsored loan program in which specific amounts of public funds are set aside to make loans for specific purposes. As loans are repaid, the funds are loaned out again.

Rezoning

Rezoning means an amendment to the map and/or text of a zoning ordinance to effect a change in the nature, density, or intensity of uses allowed in a zoning district and/or on a designated parcel or land area.

Richter Scale

The Richter Scale is a measure of the size of energy release of an earthquake at its source. The scale is logarithmic; the wave amplitude of each number on the scale is 10 times greater than that of the previous whole number.

Rideshare

Rideshare means a travel mode other than driving alone, such as buses, rail transit, carpools, and vanpools.

Ridgeline

Ridgeline means a line connecting the highest points along a ridge and separating drainage basins or small-scale drainage systems from one another.

Right-of-way

Right-of-way means a strip of land occupied or intended to be occupied by certain transportation and public use facilities, such as roadways, railroads, and utility lines.

**Riparian Habitat or Community**

Riparian habitat means the land, plants and animal life bordering a stream, river or lake.

Risk

Risk means the danger or degree of hazard or potential loss.

River

A river is a relatively large perennial stream, main stream, or larger branches of a drainage system.

Road, Through

Through road means an arterial road, a collector road, or any other road or road segment on which it is possible to enter at one end via any route from an arterial or collector road and to depart at the other end and reach an arterial or collector road without retracing any portion of the ingress route, with all portions of the ingress/egress route meeting the minimum design standards for roadways as established by the County of Tuolumne.

Roadways, Functional System

Functional System of Roadways refers to Tuolumne County's network of transportation routes which are classified as follows:

Rural Principal Arterial

Rural principal arterial refers to a network of routes functioning primarily for the movement of through traffic, usually on continuous routes, with trip length and capacities suitable for substantial statewide or interstate travel. The State Department of Transportation is the agency responsible for improving and maintaining these routes.

Rural Minor Arterial

Rural minor arterial functions in conjunction with the principal major arterials to form a network providing high speed, high volume travel corridors for movement between traffic generators such as cities, large towns and resort areas and uninterrupted intercounty travel. Rural minor arterials are spaced consistent with population density to provide a relatively high level of service to all developed areas of the State.

Rural Collector

Rural collector routes provide service between local roads and the arterial system and are primarily important for intracounty travel. These routes are subclassified as follows:

Major Collector

Major collector routes function as corridors for through traffic within local areas providing service to towns and other major traffic generators within the County which are not directly served by the arterial system. They also serve to link minor collectors and local access roads with nearby towns and communities or the arterial system.

Minor Collector

Minor collector routes generally serve lower density areas and therefore, do not have the traffic volume that major collectors do. Minor collector routes often serve to funnel traffic from groups of local roads onto the major collectors and arterial routes. Minor collectors should be spaced to bring all developing areas of the County within reasonable distance of major collectors or arterial routes.

**Rural Local Road**

Rural local roads provide direct access to residential property and other areas which are not directly served by the collector or arterial system. Local roads make up a major portion of the County's functional system of roadways. Rural local roads are all those County roads not classified under the Arterial or Collector categories.

Runoff

Runoff refers to that portion of rain or snow which does not percolate into the ground and is discharged into streams instead.

Rural

Rural means areas generally characterized by agricultural, timberland, open areas, and residential development that is less than one dwelling unit per two acres, and generally is not served by public water or sewer.

Safety Element

The Safety Element is one of the seven State-mandated elements of a local general plan; it contains adopted goals, policies, and implementation programs for the protection of the community from any unreasonable risks associated with seismic and geologic hazards, flooding, and wildland and urban fires.

Sanitary Landfill

Sanitary landfill means the controlled placement of refuse within a limited area, followed by compaction and covering with a suitable thickness of earth and other containment material.

Sanitary Sewer

A sanitary sewer is a system of subterranean conduits which carries refuse liquids or waste matter to a plant where the sewage is treated, as contrasted with storm drainage systems (which carry surface water) and septic tanks or leach fields (which hold refuse liquids and waste matter on-site).

Scenic Quality

Scenic quality is the tangible and intangible elements of a vista which contribute to its appearance. Vegetation (especially large trees), geological formations, rolling hills, old barns, openness, rock walls, canyons and other topographic features are a few of the elements which contribute to scenic quality.

Scenic Route

Scenic Route means a road which, in addition to its transportation function, provides opportunities for the enjoyment of natural and man-made scenic resources and access or direct views to areas or scenes of exceptional beauty or historic or cultural interest.

Secondary Dwelling Unit

Secondary dwelling unit means a self-contained living unit in addition to, the primary residential unit on a single lot.

Secretary of the Interior's Standards and Guidelines

The Secretary of the Interior's Standards and Guidelines are prepared by the U.S. Department of the Interior, National Park Service, for rehabilitating, preserving, identifying, evaluating, registering, reviewing and managing cultural resources.



Section 8 Rental Assistance Program

Section 8 is a federal (HUD) rent-subsidy program that is one of the main sources of federal housing assistance for low-income households. The program operates by providing "housing assistance payments" to owners, developers, and public housing agencies to make up the difference between the "Fair Market Rent" of a unit (set by HUD) and the household's contribution toward the rent, which is calculated at 30 percent of the household's adjusted gross monthly income. "Section 8" includes programs for new construction, existing housing, and substantial or moderate housing rehabilitation.

Sections 8, 23, 202, 502 and 515

These sections are Federal Housing Programs which serve the following functions:

Sections 8 & 23 - provides assistance to renters;

Section 202 - direct loans for elderly or disabled housing;

Section 502 - rural home ownership assistance program;

Section 515 - rural rental assistance program.

Seiche

Seiche means an earthquake-generated wave in an enclosed body of water such as a lake, reservoir, or bay.

Seismic

Seismic means caused by or subject to earthquakes or earth vibrations.

Seismic Ground Response Zone

Seismic ground response zone is an area in which a uniform level of relatively strong ground shaking can be expected to occur from a given earthquake. The level of ground shaking would vary with the magnitude of the earthquake and its distance from the zone.

Seniors

Seniors generally means persons age 62 and older, but senior housing developments may use age 55 as the qualifying criterion.

Sensitive Watershed

A sensitive watershed is one that has been officially designated, subject to a nomination, as sensitive pursuant to Title 14 of the California Code of Regulations (Sections 916.8, 936.8 or 956.8). Sensitive watersheds normally are associated with drinking water resources.

Septic System

A septic system is a sewage-treatment system that includes a settling tank through which liquid sewage flows and in which solid sewage settles and is decomposed by bacteria in the absence of oxygen. Septic systems are often used for individual home waste disposal where an urban sewer system is not available.

Service Corps. of Retired Executives (SCORE)

The Service Corps. of Retired Executives (SCORE) is management assistance for small businesses provided by retired business people who are identified and registered by the Small Business Administration to provide such services.

Setback

Setback means the distance from a parcel boundary or property line to the nearest exterior wall of the building.

**Settlement**

Settlement means (1) the drop in elevation of a ground surface caused by settling or compacting, (2) the gradual downward movement of an engineered structure due to compaction. Differential settlement is uneven settlement, where one part of a structure settles more or at a different rate than another part.

Shall

Shall means that which is obligatory or mandatory.

Shared Living

Shared living means the occupancy of a dwelling unit by persons of more than one family in order to reduce housing expenses and provide social contact, mutual support, and assistance. Shared living facilities serving six or fewer persons are permitted in all residential districts by Section 1566.3 of the California Health and Safety Code.

Shopping Center

Shopping center means a group of commercial establishments, planned, developed, owned, or managed as a unit, with common off-street parking provided on the site.

Should

Should signifies a directive to be honored if at all possible.

Sign

Sign means any representation (written or pictorial) used to convey information, or to identify, announce, or otherwise direct attention to a business, profession, commodity, service, or entertainment, and placed on, suspended from, or in any way attached to, any structure, vehicle, or feature of the natural or manmade landscape.

Significant Cultural Resource

A significant cultural resource is a resource which is important in terms of integrity, research potential, and/or public benefit as defined in Appendix G of CEQA or a resource of special interest or value as part of the development, heritage or cultural character of the County, State or Nation.

Significant Effect

Significant effect on the environment means substantial or potentially substantial, adverse change in any of the physical conditions within the area affected by development including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

Siltation

Siltation means (1) the accumulating deposition of eroded material, (2) the gradual filling in of streams and other bodies of water with sand, silt, and clay.

Single Family Dwelling, Attached

An attached single family dwelling is a dwelling unit occupied or intended for occupancy by only one household that is structurally connected with at least one other such dwelling unit. (See "Townhouse.")

**Single Family Dwelling, Detached**

A detached single family dwelling is a dwelling unit occupied or intended for occupancy by only one household that is structurally independent from any other such dwelling unit or structure intended for residential or other use.

Site

Site means a parcel of land used or intended for one use or a group of uses.

Site Class

Commercial timber land is graded by two different site class curves, the Dunning scale, developed in 1942, and the Arvanitis scale, developed in 1964. The Dunning scale is based upon the average height the dominant trees reach at 300 years of age measured in 25-foot class intervals. The Arvanitis scale is based on the average height the dominant trees reach at 100 years of age measured in 20-foot class intervals.

Skilled Nursing Facility

Skilled nursing facility means any establishment which provides nonhospital skilled nursing care administered by licensed registered or vocational nurses.

Slope

Slope is the land gradient described as the vertical rise divided by the horizontal run, and expressed in percent.

Soil

Soil is the unconsolidated material on the immediate surface of the earth created by natural forces that serves as natural medium for growing land plants.

Solar Access

Solar access means the provision of direct sunlight to an area specified for solar energy collection when the sun's azimuth is within 45 degrees of true south.

Solar System, Active

An active solar system is a system using external sources of energy to power blowers, pumps, and other types of equipment to collect, store and convert solar energy for the purpose of heating or cooling the interior of a building.

Solar System, Passive

A Passive Solar System is a system that uses direct heat transfer from thermal mass instead of mechanical power to distribute collected heat. Passive systems rely on building design and materials to collect and store heat and to create natural ventilation for cooling.

Solid Waste

Solid waste is any unwanted or discarded material that is not a liquid or gas. Includes organic wastes, paper products, metals, glass, plastics, cloth, brick, rock, soil, leather, rubber, yard wastes, and wood, but does not include sewage and hazardous materials.

Sound Level, Average (L_{dn})

The average sound level means the energy equivalent, defined as the average sound level on the basis of sound energy or sound pressure squared. The L_{dn} is a "dosage" type measure and is the basis for the descriptors used in current standards, such as the 24-hour CNEL used by the State of California.

**Sound Level, Equivalent (L_{eq})**

The equivalent sound level is the sound level containing the same total energy as a time varying signal over a given sample period. L_{eq} is typically computed over 1,8 and 24-hour sample periods.

Sound Level, Maximum (L_{max})

The maximum sound level is the energy equivalent level for the peak sound events measured for any period of time no matter how brief, on the basis of maximum sound energy measured during a noise event higher than the background noise. L_{max} is similar to L_{eq} , but instead of an *average* over the period of time, the L_{max} is determined by the instantaneous *peak* during any sound event that exceeds the background sound level.

Specific Plan

Specific plan means a State-authorized legal tool adopted by cities and counties for detailed design and implementation of a defined portion of the area covered by a general plan. A specific plan may include all detailed regulations, conditions, programs and/or proposed legislation that may be necessary or convenient for the systematic implementation of any general plan element(s).

Speed, Average

Average speed means the sum of the speeds of the cars observed divided by the number of cars observed.

Sphere of Influence (SOI)

Sphere of Influence means the probable ultimate physical boundaries and service area of a local agency (city or district) as determined by the Tuolumne County Local Agency Formation Commission (LAFCO).

Standard

Standard is a specific, quantified guideline defining the relationship between two or more variables. Standards are often translated into regulatory controls. An example standard is the density limitations of one (1) dwelling unit per two (2) acres for the Estate Residential land use designation.

Standardized Emergency Management System (SEMS)

Standardized Emergency Management System (SEMS) is a set of regulations, codified as Sections 2400 through 2450 of Title 19 of the California Code of Regulations, which provide for standardized response to emergencies involving multiple jurisdictions or multiple agencies. SEMS is intended to be flexible and adaptable to the needs of all emergency responders in California.

State Responsibility Area (SRA)

State Responsibility Area means an area of the State in which the financial responsibility for preventing and suppressing fires has been determined by the State Board of Forestry to be primarily the responsibility of the State.

Storm Runoff

Storm runoff means the surplus surface water generated by rainfall that does not seep into the earth but flows overland to flowing or stagnant bodies of water.

Strategic Fire and Resource Protection Planning

Strategic Fire and Resource Protection Planning is a broader and more comprehensive approach to fire protection planning than traditionally practiced, the fundamental aim of which is resource protection, whether those be



natural resources or private property improvements. The process addresses the total fire environment and describes ways to assure that the planning results in cost-effective fire defense systems.

Structure

Structure means that which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

Structural Fire

Structural fire is fire which relies on buildings or structures, or their contents, for fuel.

Subdivision

Subdivision means the division of a tract of land into defined lots, either improved or unimproved, which can be separately conveyed by sale or lease, and which can be altered or developed. "Subdivision" includes a condominium project as defined in Section 1350 of the California Civil Code.

Subdivision Map Act

The Subdivision Map Act is Division 2 (Sections 66410 et seq) of the California Government Code. This act vests in local legislative bodies the regulation and control of the design and improvement of subdivisions, including the requirement for tentative and final maps. (See "Subdivision.")

Subregional

Subregional means pertaining to a portion of a region.

Subsidence

Subsidence means the gradual settling or sinking of an area with little or no horizontal motion. (See "Settlement.")

Subsidize

Subsidize means to assist by payment of a sum of money or by the granting of terms or favors that reduce the need for monetary expenditures. Housing subsidies may take the forms of mortgage interest deductions or tax credits from federal and/or state income taxes, sale or lease at less than market value of land to be used for the construction of housing, payments to supplement a minimum affordable rent, and the like.

Substantial

Substantial means considerable in importance, value, degree, or amount.

Surface Water

Surface water means water on the earth's surface, as distinguished from subterranean water, typically found flowing in natural or man-made water courses such as rivers, streams, or canals, or contained in lakes or storage reservoirs.

Thermal Mass

Thermal mass means large quantities of heavy or dense material with a high heat capacity, used in solar buildings to absorb heat, which is then stored and re-radiated as needed for heating and cooling.

**Timberland**

Timberland means a commercially viable land producing fiber or forest products or capable of producing a crop of trees with an aggregate growth potential in excess of 20 cubic feet per acre per year.

Timberland Production Zone (TPZ)

Timberland Production Zone is a land use designation in the general plan that identifies nonfederal timber producing lands for special County tax assessments, as required by the State Forest Taxation Reform Act of 1976. This Act was amended and replaced by the Timberland Productivity Act of 1982.

Timberland Use

Timberland use means commercial use of the land to produce fiber or forest products upon the land and may include the packaging or processing of products originating on the land as well as compatible uses that are capable of co-existing with the current or future timberland use without interfering with timber production.

Topography

Topography means the configuration of a surface, including its relief and the position of natural and man-made features.

Tuolumne County Register of Cultural Resources

The Tuolumne County Register of Cultural Resources is the list of properties within the County which have been determined, by the Board of Supervisors, after formal review by the Tuolumne County Historic Preservation Review Commission, to be worthy of preservation and eligible to participate in cultural resources incentive programs.

Tourism

Tourism is the business of providing services for persons traveling for pleasure.

Trafficking

Trafficking is the unlawful and knowing possession, selling, buying or transport or offer to sell, buy or transport any human remains or cultural resources which have been acquired in violation of state law or the County ordinance.

Traffic Model

A traffic model is a mathematical representation of traffic movement within an area or region based on observed relationships between the kind and intensity of development in specific areas. Many traffic models operate on the theory that trips are produced by persons living in residential areas and are attracted by various non-residential land uses. (See "Trip.")

Transient Occupancy Tax (TOT)

TOT is a tax levied on the occupancy of a room or rooms in a hotel, inn, tourist home or house, or other lodging for a period up to 30 days; also known as a room occupancy tax, hotel/motel tax or bed tax.

Transit

Transit means the conveyance of persons or goods from one place to another by means of a local, public transportation system.

**Transit-dependent**

Transit-dependent refers to persons unable to operate automobiles or other motorized vehicles, or those who do not own motorized vehicles. Transit-dependent citizens must rely on transit, para-transit, or owners of private vehicles for transportation. Transit-dependent citizens include the young, the handicapped, the elderly, the poor, and those with prior violations in motor vehicle laws.

Transit, Public

Public transit means a system of regularly-scheduled buses and/or trains available to the public on a fee-per-ride basis. Also called "Mass Transit."

Transitional Housing

Transitional housing means housing with supportive services with occupancy not to exceed 24 months that is exclusively designated for recently homeless persons. Transitional housing includes self-sufficiency development services, with the ultimate goal of moving recently homeless persons to permanent housing as quickly as possible.

Transportation Demand Management (TDM)

TDM is a strategy for reducing demand on the road system by reducing the number of vehicles using the roadways and/or increasing the number of persons per vehicle. TDM attempts to reduce the number of persons who drive alone on the roadway during the commute period and to increase the number in carpools, vanpools, buses and trains, walking, and biking.

Tree

A tree is a woody perennial plant, typically having a single stem or trunk growing to a considerable height and bearing lateral branches at some distance from the ground.

Trees, Heritage

Heritage trees are individual trees of outstanding scenic, historic or biological value and/or a tree unique in terms of age and/or size when compared to other trees of the same species.

Trees, Street

Street trees are trees strategically planted--usually in parkway strips, medians, or along streets--to enhance the visual quality of a street.

Trip

A trip is a one-way journey that proceeds from an origin to a destination via a single mode of transportation; the smallest unit of movement considered in transportation studies. Each trip has one "production end," (or origin--often from home, but not always), and one "attraction end," (destination). (See "Traffic Model.")

Trip Generation

Trip generation means the dynamics that account for people making trips in automobiles or by means of public transportation. Trip generation is the basis for estimating the level of use for a transportation system and the impact of additional development or transportation facilities on an existing, local transportation system. Trip generations of households are correlated with destinations that attract household members for specific purposes.

**Truck Route**

A truck route is a path of circulation required for all vehicles exceeding set weight or axle limits, a truck route follows major arterials through commercial or industrial areas and avoids sensitive areas.

Tuolumne County Biological Resources Maps

The Tuolumne County Biological Resources Maps are base maps maintained by the Tuolumne County Planning Division, derived from aerial photographs, indicating the vegetation types over private lands in Tuolumne County.

Tuolumne County Emergency Plan

The Tuolumne County Emergency Plan is a plan developed pursuant to Section 2.40.100 of the Tuolumne County Ordinance Code which provides for the mobilization of all of the resources of Tuolumne County, both public and private, to meet any condition constituting a local emergency, or a state of war emergency; which provides for the organization, powers and duties, services, and staff of the emergency organization.

Tuolumne County Fire Department (TCFD)

The Tuolumne County Fire Department (TCFD) is the fire protection agency responsible for life and property fire protection in all areas of Tuolumne County not within a fire protection district or under jurisdiction of a federal agency. TCFD is administered by the California Department of Forestry and Fire Protection (CAL FIRE) through a contract with Tuolumne County.

Tuolumne County Office of Emergency Services (OES)

The Tuolumne County Office of Emergency Services (OES) is staffed by the Tuolumne County Emergency Services Coordinator and is responsible for the preparation and implementation of plans for the protection of persons and property within Tuolumne County in the event of an emergency; the direction of the emergency organization; and the coordination of the emergency functions of Tuolumne County with all other public agencies, corporations, organizations, and affected private persons.

Underground Resource

Underground resource means a naturally occurring substance located below the surface level of the earth that is considered valuable to humans, including but not limited to water, minerals, and soil

Undue

Undue means improper, or more than necessary.

Unified School District

A unified school district is a public school district which provides curriculum for elementary and high school grades.

Universal Design

The concept of designing the built environment to be usable to the greatest extent possible by everyone, regardless of their age or ability.

Urban

Urban means areas that are characterized by residential densities exceeding one (1) dwelling unit per two acres and commercial development except on land designated on the General Plan land use diagrams as Special Commercial (SC).

**Urban Services**

Urban services are utilities (such as water and sewer) and public services (such as police, fire, schools, parks, and recreation) provided to an urbanized or urbanizing area.

Urban Sprawl

Urban sprawl means haphazard growth or outward extension of a city resulting from uncontrolled or poorly managed development.

Urban Street

An urban street provides access for automotive vehicles as well as increased pedestrians and bicyclists to the urbanized areas of the County, such as the City of Sonora. Urban streets are all those portions of County roads within one mile of a traffic signal/stop control and/or have eight (8) or more access points per mile.

Use

Use means the purpose for which a parcel or structure is or may be leased, occupied, maintained, arranged, designed, intended, constructed, erected, moved, altered, and/or enlarged in accordance with the County's zoning ordinance and General Plan land use designations.

Use, Non-conforming

(See "Non-conforming Use.")

Use Permit, Conditional

Conditional Use Permit means the discretionary and conditional review of an activity or function or operation on a site or in a building or facility.

Utility Corridors

Utility corridors means rights-of-way or easements for utility lines on either publicly or privately owned property. (See "Right-of-way" or "Easement.")

Vacant

Vacant refers to lands or buildings which are not actively used for any purpose.

Variance

Variance means a departure from any provision of the zoning requirements for a specific parcel, except use, without changing the zoning ordinance or the underlying zoning of the parcel. A variance is granted only upon demonstration of hardship based on the peculiarity of the property in relation to other properties in the same zone district.

Vehicle-Miles Traveled (VMT)

VMT is a key measure of overall street and highway use. Reducing VMT is often a major objective in efforts to reduce vehicular congestion and achieve regional air quality goals.

Vernal Pools

Vernal pools are basins that form in soils over an impervious rock or clay layer that collect surface runoff from winter storms and gradually dry out by evaporation as the weather becomes warmer in the spring. Vernal pools support diverse and unique plant and wildlife species specifically adapted to these conditions. This habitat supports a number of threatened and endangered species.

**Viewshed**

Viewshed means the area within view from a defined observation point.

Visual Quality

See Scenic quality

Warehousing

Warehousing is a use engaged in storage, wholesale, and distribution of manufactured products, supplies, and equipment.

Watercourse

Watercourse means a natural or once natural flowing (perennially or intermittently) water including rivers, streams, and creeks. Includes natural waterways that have been channelized, but does not include manmade channels, ditches, and underground drainage and sewage systems.

Water Purveyor

A water purveyor is a public utility, water company or municipality that supplies drinking water to a population.

Water Resource

A water resource includes rivers, lakes, ponds, reservoirs, springs, seeps, marshes, wet meadows, vernal pools and perennial, intermittent or ephemeral drainages and groundwater aquifers.

Water System, Transient-noncommunity

A Transient-noncommunity Water System is a public water system that is not a community water system or a nontransient-noncommunity water system. An example is a motel served by a well that provides water supply to a population that changes essentially every day. (Section 64401.85 of the California Code of Regulations)

Watershed

A watershed is defined to be a region or area bounded peripherally by physical features separating the drainage of a watercourse or body of water from other water course drainages. Watershed means the total area above a given point on a watercourse that contributes water to its flow; the entire region drained by a waterway or watercourse which drains into a lake, or reservoir. For example, the Tuolumne River watershed is all area and streams contributing flows to the Tuolumne River and the Curtis Creek watershed is all area and streams contributing flow to Curtis Creek.

Waterway

A Waterway is a natural or once natural channel in which water flows perennially or intermittently, including rivers, streams, and creeks. Includes natural waterways that have been channelized, but does not include manmade channels, ditches, and underground drainage and sewage systems.

Wetlands

Wetlands are transitional areas between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is covered by shallow water, Under a unified methodology used by all federal agencies, wetlands are defined as "those areas meeting certain criteria for hydrology, vegetation and soils" as defined in US Code 33 USC 1344, Part 328; the "Corps of Engineers Wetland Delineation Manual", Dept. of Army, Technical Report Y-87-1, January, 1987; Section 5902 of the California Public Resources Code; or Section 5812 of the Public Resources Code.

**Wetland Mitigation Bank**

Wetland mitigation bank means a program designed to mitigate impacts to wetlands by identifying wetland areas that would be restored or enhanced and preserved as "banks" for which "credits" would be available to compensate for loss of wetlands associated with planned development activities. Wetlands "banks" provide for consolidated and efficient management of wetlands areas to mitigate the loss of numerous incremental wetland losses in areas where avoidance or preservation is infeasible.

Wildland

Wildland means an undeveloped area characterized primarily by natural topography and vegetation.

Wildland Fire

Wildland fire is fire which consumes natural vegetation for fuel and is carried by natural vegetation.

Wildlife Management Plan

The Wildlife Management Plan is a plan, prepared by a parcel owner in consultation with the California Department of Fish and Wildlife, detailing the activities and methods that will be used to enhance the value of a biological resource.

Williamson Act/Land Conservation Contracts

Williamson Act Contracts are agreements between the County and the owners of agricultural lands pursuant to Sections 51200-51295 of the Government Code. Upon signing the contract, the development rights of the landowners are restricted for a period of ten years in exchange for preferential tax assessments. These contracts are also known as Land Conservation Contracts.

Woodland Stand

A woodland stand is a spatially continuous area of tree-dominated vegetation in which trees occur in relatively low density and with crowns that generally do not overlap (usually with 10% to 60% canopy cover). A woodland stand may support an understory of shrubs and herbaceous plants including grasses.

Working Landscape

Property from which income is derived from the management of natural resources present on the land.

Zoning

Zoning means the primary tool for implementing the General Plan. All privately owned property in a jurisdiction is classified as belonging in one of a number of Zoning Districts within which allowable uses and development standards are defined and prescribed. The zoning ordinance consists of a text defining the requirements for each district and map(s) which delineate the districts.

Zone, Combining

A Combining Zone is a special purpose zone which is superimposed over the regular zoning map. Combining zones are used for a variety of purposes, such as airport compatibility, historic designation, or design review. Also called "overlay zone."

Zone, Traffic

Traffic zone refers to an area to be studied in a mathematical traffic model the area to be studied is divided into zones, with each zone treated as producing and attracting trips. The production of trips by a zone is based on the number of trips to or from work or shopping, or other trips produced per dwelling unit.

**Zoning District**

Zoning District is a designated section of the County for which prescribed land use requirements and building and development standards are uniform.

Zoning Map

A Zoning Map refers to Government Code Section 65851 which permits a legislative body to divide a county, or portions thereof, into zones of the number, shape, and area it deems best suited to carry out the purposes of the zoning ordinance. These zones are delineated on a map or maps, called the Zoning Map.