

## A: UNIT DESCRIPTION

### Geographic

The Tuolumne-Calaveras Unit is located in Central California, an hour east of Modesto or Stockton, in the foothills of the Sierra Nevada Range; a region known as the Mother lode. It includes the majority of Calaveras and Tuolumne counties, and the eastern portions of San Joaquin and Stanislaus Counties. "The Unit" by definition technically extends down slope from the Forest Service boundary and into the Central Valley as far west as the San Joaquin River in the vicinity of Interstate Highway 5. However the Unit's Primary Operational Area (POA) begins at the LRA/SRA boundary a few miles west of the western Calaveras and Tuolumne County lines (running south roughly from Clements, past Woodward Reservoir to Turlock Lake) up to the Forest Service boundary. (*Throughout this document the phrase "the Unit" refers to that POA.*) The Unit spans an elevation range from a low of 300' among the rolling plains of eastern San Joaquin and Stanislaus counties to highs of near 5,000' in central Tuolumne Co. and 6,000' feet in central Calaveras Co. The heart of the Unit is cut by a series of generally east-west oriented river canyons creating vast areas of extremely steep and rugged terrain. In the west the topography is generally described as rolling hills, however here too steep rugged terrain is created by a unique series of north-south oriented ridges that form a sort of barrier between the foothill country and the western plains.

The entire Unit encompasses almost 2.9 million acres. There are over a million acres of State Responsibility Area (SRA) lands within the Unit. SRA is defined as forest, brush or grass covered lands where the State is responsible for wildland fire protection. SRA is mainly composed of private land holdings. Lands owned and/or administered by the Federal government are designated as Federal Responsibility Areas (FRA). Lands not designated as SRA or FRA typically fall within an incorporated city, are in agricultural use or are rural central valley areas that don't otherwise meet the criteria for SRA/FRA designation. These remaining lands are designated as Local Responsibility Areas (LRA).

TUOLUMNE - CALAVERAS UNIT ACRES BY OWNERSHIP	
TOTAL ACRES	2,869,030
Private	2,040,346
U.S. Forest Service	690,017
U.S. Bureau of Land Mngt.	82,190
U.S. Bureau of Reclamation	24,207
State of California	16,443
U.S. Fish & Wildlife Service	10,297
Bureau of Indian Affairs	356

Table 1A-1

There are four major watersheds in the Unit: the Mokelumne, Calaveras, Stanislaus and Tuolumne River systems. These four systems support seven major reservoirs within the Unit: Camanche Reservoir, Hogan Lake, Pardee Reservoir, Tiger Creek Reservoir, New Melones Reservoir, Tullock Lake, and Don Pedro Reservoir. These hydrologic resources in turn support major local and regional communities and industries.

There are five east-west state highways in the Unit: 12, 26 and 4 in Calaveras County; 108 and 120 in Tuolumne County. State Highway 49 is the only north-south highway. The majority of towns and the greatest population densities in the Unit exist on or near these major transportation corridors.

## **Socioeconomic**

The approximate population within the Unit's two primary counties is 101,906. As of 2009, the US Census Bureau reported an estimated population of 46,731 in Calaveras County, an increase of 15.2% since 2000; and 55,175 in Tuolumne County, an increase of just 1.2% since 2000. The population within the San Joaquin and Stanislaus County portions of the Unit's Direct Protection Area is far less dense and only provides a minor contribution to the total Unit population.

The major industries/employers that support the local economy include health care, government, tourism and recreation, construction, and agriculture. In years past the timber industry has been a significant employer, but has steadily declined in recent years. Sierra Pacific Industries, a major timberland owner and mill operator, is planning to reopen their mill in Standard after a two year closure motivated by the weakening economy. The mill is anticipating the return of approximately 130 jobs. Research indicates that each mill job can produce up to six jobs elsewhere in the local economy.

## **Fire Environment**

Being located in the heart of the central Sierra Nevada range, TCU features examples of a wide range of challenging topography, fuels and weather. These naturally occurring elements alone have a great deal of influence on the nature of wildland fires within its boundaries. Add to this an expanding human population and the environment is ripe with potential for large damaging fires.

The grasslands of the rolling western plains routinely experience extreme summer heat, and significant wind events during the spring and fall months. In these areas motorized fire equipment can be fully utilized to great success. The brush fields common throughout the central portions of the Unit lay over broad expanses of steep hillsides and atop narrow ridgelines between the deepening river canyons. Here too routine summer temperatures can be extreme, while the topography makes access increasingly difficult for motorized equipment. The brush transitions into the mixed oak and conifer zones as the elevation increases and the canyon depth and width increase significantly. Over 38% of the CAL FIRE protected lands are covered with these high hazard brush and timber fuels. This mid-elevation area also experiences high summer temperatures, and is most affected by the normal diurnal winds associated with the canyon-dominated topography. The higher elevation zone features dense stands of conifer timber much of

which exhibits large accumulations of ground and ladder fuels. While routinely temperatures are moderated due to the elevation, wind events in the fall contribute to potentially challenging fire conditions. Historically, severe fire weather occurs throughout the Unit on 35% of days during the fire season.

The convergence of significant fire weather conditions, a wide variety of topography and a broad spectrum of fuels has resulted in a long history of large damaging fires within TCU. Concrete evidence of this is depicted in the Battalion maps found in the Exhibits section toward the end of this document, beginning on page 147.

## B: UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES

### Fire Protection Responsibilities

CAL FIRE is mandated by statute to provide wildland fire protection on State Responsibility Area lands (SRA). Wildland fire protection on Federal Responsibility Area lands (FRA) is the responsibility of the federal government (USFS, BLM etc); and of local government entities (city, county, district) on Local Responsibility Area lands (LRA). To reduce fire protection costs, and increase the efficiency of initial attack operations, CAL FIRE and the federal land management agencies have entered into agreements that define Direct Protection Areas (DPA) for each agency. An agency's DPA is the geographic area for which the agency is directly responsible for providing wildland fire protection, regardless of SRA/FRA designation. As an example, a plot of private land (SRA by law) well within the national forest boundary (FRA by ownership) may receive Direct Protection by the USFS due to the closer proximity of USFS fire resources. Thus this plot of SRA is designated part of the federal DPA. Similarly, USFS land (FRA) isolated within private land (SRA) may be provided Direct Protection by CAL FIRE due to its proximity to CAL FIRE resources. Thus this FRA land is included in the state DPA. On a statewide basis, CAL FIRE and the federal agencies attempt to balance the acreage totals of these trade-offs so that no single agency is protecting more of the other agencies land than the reciprocating agency. Where agency jurisdictions abut is where the majority of DPA swaps have been agreed to. This process is guided by the "Balancing of Acres" agreements amongst agencies. Through this agreement the CAL FIRE Tuolumne-Calaveras Unit and the Stanislaus National Forest provide direct wildland fire protection on some of each other's Responsibility Areas, as shown in the table below. The Bureau of Land Management, Bureau of Reclamation, Army Corps of Engineers and Bureau of Indian Affairs are other Federal agencies with land holdings within the Tuolumne-Calaveras Unit on which CAL FIRE provides Direct Protection. These agencies' and the US Forest Service's are combined and shown as FRA in the following table.

<b>TUOLUMNE - CALAVERAS UNIT CAL FIRE DIRECT PROTECTION ACRES 2011</b>	
Calaveras Co. SRA	527,834
Tuolumne Co. SRA	300,194
Stanislaus Co. SRA	174,913
San Joaquin Co. SRA	60,039
Calaveras Co. FRA	95,386
Tuolumne Co. FRA	86,106
Stanislaus Co. FRA	17
San Joaquin Co. FRA	0
<b>TOTAL CDF DPA ACRES</b>	<b>1,244,489</b>

Table 1A-2

## **CAL FIRE Organization**

The Tuolumne-Calaveras Unit manages a large “schedule B” organization throughout the Unit, and a “schedule A” organization in Tuolumne County. The “schedule B” program consists of the personnel, facilities and equipment directly funded by state dollars for the purpose of providing wildland fire protection on SRA lands. The “B” program in TCU consists of 15 CAL FIRE fire stations, 2 inmate conservation camps, 1 inmate conservation camp training center, an air attack base, an emergency command (dispatch) center and a fire lookout tower. During peak fire season (historically June through September), these facilities provide the base of operations for 21 type III wildland fire engines staffed with 3-4 firefighters, 10 17-man inmate fire crews, 2 bulldozers, 1 air attack plane, 2 air tanker planes, 1 14-person Helitack crew, and 2 lookouts (staffed on a “call when needed” basis).

The “schedule A” program offered by CAL FIRE to local government consists, in part, of equipment owned by the local government entity (Tuolumne Co). Staffing and administration is provided by the State (CAL FIRE) under a contractual agreement. In Tuolumne Co. CAL FIRE provides year-around staffing on a Type 1 municipal fire engine. This engine, along with the many volunteer-staffed engines and water tenders that make up the bulk of the Tuolumne Co. Fire Dept., is also included in wildland fire operations.

TCU is administered by the Unit Chief and a Deputy Chief for Operations, headquartered in San Andreas, Calaveras Co. The fire control portion of the Unit is divided into North and South Divisions, each of which is managed by a CAL FIRE Division (aka Assistant) Chief. The North Division is most easily thought of as being Calaveras County; but also includes eastern San Joaquin Co., a small portion of northeastern Stanislaus Co., and a swath of private timber land north of the Middle Fork Stanislaus River in northeastern most Tuolumne Co. The South Division includes the remaining majority of Tuolumne Co. and eastern Stanislaus Co. A third Division Chief, also operating out of Tuolumne Co., supervises the Tuolumne Co. Fire Dept. (schedule ‘A’ program).

The North Division, in Calaveras Co., is divided into four Battalions, each of which is administered by a CAL FIRE Battalion Chief. Battalion 1 covers from Mokelumne Hill to Wallace on the north, and from Jenny Lind to San Andreas on the south, and includes the Valley Springs and San Andreas Forest Fire Station’s. Battalion 2 covers the lower Highway 4 corridor from Eastern Stanislaus County to Murphys, and includes the Copperopolis, Altaville and Murphys Forest Fire Stations. Battalion 3 is the upper Highway 26 area and includes the communities of Glencoe, West Point, Wilseyville, Railroad Flat and Mountain Ranch, and includes the West Point, Esperanza and Hermit Springs Forest Fire Stations. Battalion 4 covers the upper Highway 4 area from Forest Meadows to Black Springs Road and the area in Tuolumne County north of the Middle Fork Stanislaus River, and includes the Arnold and Skull Creek Forest Fire Stations and Blue Mountain Lookout. Vallecito Conservation Camp, located between Angels Camp and Murphys, completes the North Division list.

The South Division, in Tuolumne Co., is divided into two Battalions. Battalion 5 covers the Tuolumne Co. area north of the Tuolumne river and includes the Standard Forest Fire Station (this station operation relocated from the old Sonora Station in 2008), and the Twain Harte Forest Fire Station (rebuilt in 2008-09 on the same site). Battalion 6 covers the area south of the Tuolumne River and includes the Groveland, Blanchard and Green Springs Forest Fire Stations. The South Division also includes the Columbia Air Attack base (fixed wing and helicopter), Baseline Conservation Camp and the Forestry Training Program located at the Department of Corrections' Sierra Conservation Center.

## **Local Government Fire Organization**

CAL FIRE cooperates closely with all the local city and district fire departments within the TCU boundaries. These agencies have primary responsibility for all emergency incidents within their boundaries, except wildland fires (exception: as LRA's, Sonora City and Angels Camp City retain wildland fire jurisdiction). CAL FIRE and local agencies apply the concept of "closest available resource", via long standing mutual aide agreements, in order to assure the appropriate numbers and types of emergency resources are brought to bear for every emergency. Thus CAL FIRE engines are responding to all incidents throughout the two counties during the months these engines are staffed. Similarly, CAL FIRE relies heavily on district and city resources to supplement our wildland fire response. To facilitate this level of cooperation, TCU's Emergency Command Center (ECC) provides contracted dispatching services for all of the local city and district fire departments in Tuolumne and Calaveras Counties, and the Bear Valley Fire Department in western Alpine County.

- **Calaveras County** : There are 10 fire districts and one city department in Calaveras County: West Point; Mokelumne Hill; Foothill; Jenny Lind; San Andreas; Central Calaveras; Copperopolis; Altaville-Melones; Murphys; and Ebbetts Pass Fire Districts; and Angels Camp City;. The district boundaries combine to cover the entire county except three geographic areas that chose to be excluded from the districts. These areas are as follows: Area 1 – west county area between the Jenny Lind and Copperopolis Fire Districts; Area 2 – Old Gulch Road area south of San Andreas; and Area 3 – the greater Sheep Ranch area. These areas later negotiated with adjacent districts to provide their fire protection. The district boundaries encompass large areas surrounding the communities they are named after (the Foothill Fire Dist. includes the Hwy. 12 corridor from Valley Springs to Wallace; the Central Calaveras Fire Dist. covers the Mountain Ranch and Railroad Flat areas).
  
- **Tuolumne County** : There are seven fire districts and one city department in Tuolumne County: Columbia; Jamestown; Tuolumne; Twain Harte; Mi Wuk-Sugarpine; Strawberry; Groveland; and Sonora City. The district boundaries encompass relatively small areas surrounding the communities they are named after. Several of these Fire Districts are staffed by a combination of paid and volunteer personnel; some by volunteers only. Sonora City F.D. provides a full time paid staff.

- **Tuolumne County Fire Department;** Paul Speer Assistant County Fire Warden/CAL FIRE Division Chief: The majority of unincorporated Tuolumne County falls outside a fire district boundary thus is protected by the Tuolumne County Fire Department, administered by CAL FIRE under a contractual agreement with the County. There are 15 Stations in the County Fire Dept: Station 51 - Mono Village, Station 53 - Ponderosa Hills, Station 54 - Long Barn, Station 55 - Pinecrest, Station 56 - Mono Vista, Station 57 - Crystal Falls, Station 58 - Cedar Ridge, Station 61 - Chinese Camp, Station 62 - Moccasin, Station 63 - Smith Station, Station 64 - Don Pedro, Station 76 - Jamestown, Station 77 - Mi Wuk, Station 79 - Columbia College, and Station 59 - Sonora which serves as the Mobile Equipment Repair facility. All but one are staffed by volunteer firefighters, the exception being the Mono Village Station, staffed with a minimum of two full time CAL FIRE personnel 24 hours a day, 7 days a week, supplemented by volunteers. The remaining stations are staffed by volunteers from throughout the community. The contract includes a CAL FIRE Training Officer for the nearly 100 volunteers who continue to provide dedicated service to their respective communities; responding in 31 pieces of fire apparatus, including 23 engines, 6 water tenders, and 4 support apparatus and vehicles; under the supervision of volunteer company officers, and in close cooperation with CAL FIRE personnel. Thousands of hours of training is required of these volunteers to enter and remain current in the field. There is a close working relationship between Tuolumne County Fire Department Volunteers and CAL FIRE personnel that has resulted in a long history of effective fire and rescue services in the county.
- **Fire Prevention Division :** Staffed by County employees; one full time and two part time, the Prevention Division works to provide a safer environment for the citizens of Tuolumne County by preventing the loss of life and property through public education and the enforcement of fire codes, laws and County ordinances related to fire and life safety. The employees of this division also review commercial and residential permits for compliance with currently adopted Fire and Building codes, review applications consisting of Site Development Permits, Development Agreements, Zone Changes, Tentative and Final Maps, Tentative and Final Subdivision Maps, Commercial, Industrial and High/Low Density Residential Development. Other duties include on-site inspections, responding to citizen complaints, code enforcement, issuing permits, and incident response.
  - **Columbia College Fire Dept :** T.C.F.D. has entered into a cooperative fire agreement with the Yosemite Community College District whereby TCFD/CAL FIRE provides a Fire Captain as a Training Officer and front line supervisor to the cadets assigned to the Columbia College Fire Department. Those duties include the management of the day to day operations of the station, including the direct supervision of 15 student firefighters and two pieces of apparatus. The Fire Captain also serves as a Safety Officer and/or Incident Commander overseeing the cadets while on the scene of emergency incidents.

- **Jamestown Fire Protection District** : has contracted with Tuolumne County to provide one CAL FIRE Fire Captain to perform the administrative, supervision and Training Officer duties for the department. During the summer “fire season” the Jamestown FPD relies on volunteer staffing. During the “off season” four CAL FIRE Fire Apparatus Engineers provide driver/operator and incident command services to the district under the terms of the contract with the County.
- **Amador Program** : At the annual closure of the state’s wildland “fire season” the CAL FIRE schedule ‘B’ program lays off its seasonal staff and most of the stations are “closed” while the permanent staff engages in training, maintenance and administrative operations. Under the terms of the “Amador Program”, as set forth in Public Resources Code sect 4144, Tuolumne County has for many years contracted with CAL FIRE to retain engine staffing at some CAL FIRE stations for the purpose of maintaining a higher level of emergency response capability, throughout the winter months, than would be possible with only the schedule ‘A’ Mono Vista station and available volunteers. Historically a single state engine was staffed at Twain Harte, Blanchard and/or Green Springs Forest Fire Stations. In 2010 the County included funding for Fire Fighter positions to supplement the Amador Program’s company officer staffing, the equivalent of CAL FIRE’s Fire Fighter 1 position.