

INTRODUCTION

Fire Plan Concept and Process

In 1996, the State Board of Forestry and the California Department of Forestry and Fire Protection (CDF) drafted a comprehensive update of the fire plan process for wildland fire protection in California. The planning process defines a level of service measurement, considers assets at risk, incorporates the cooperative interdependent relationships of wildland fire protection providers, provides for public stakeholder involvement, and creates a fiscal framework for policy analysis. The State Board of Forestry, being the policy maker for CDF, is responsible for reviewing, commenting on and approving processes such as the California Fire Plan.

Goal and Objectives

The overall goal of the California Fire Plan is to reduce total costs and losses from wildland fire in California by protecting assets at risk through focused pre-fire management prescriptions and increasing initial attack success. The goals of the Tuolumne-Calaveras Unit (TCU), the Battalions and the Fire Safe Councils within TCU are noted later in this document.

The California Fire Plan has five strategic objectives:

1. To create wildfire protection zones in and around key assets at risk that will reduce the risks to citizens and firefighters.
2. To assess all wildland areas, not just the state responsibility areas. The analysis will include all wildland fire service providers — federal, state, local government, and private. The analysis will identify high risk, high value areas, and develop information on and determine who is responsible, who is responding, and who is paying for wildland fire emergencies.
3. To identify and analyze key policy issues and develop recommendations for changes in public policy. Analysis will include alternatives to reduce total costs and losses by increasing fire protection system effectiveness.

4. To have a strong fiscal policy focus and monitor the wildland fire protection system in fiscal terms. This will include all public and private expenditures and economic losses.
5. The results of the analysis will be used to change public policies to afford better wildland fire protection to the citizens of California.

Fire Plan Framework

Five major components will form the basis of an ongoing fire planning process to monitor and assess California's wildland fire environment:

1. **Wildfire protection zones.** A key product of this Fire Plan is the development of wildfire safety zones in and around key assets at risk. The zones will be identified through stakeholder meetings with government agencies, private citizens and interested groups. They will be designed to reduce citizen and firefighter risks from future large wildfires.
2. **Initial attack success.** The fire plan defines an assessment process for measuring the level of service provided by the wildland fire protection system. This measure can be used to assess the department's ability to provide an equal level of protection to lands of similar type, as required by Public Resources Code 4130. This measurement is the percentage of fires that are successfully controlled before unacceptable costs are incurred. Knowledge of the level of service will help define the risk to wildfire damage faced by public and private assets in wildland areas.
3. **Assets protected.** The plan will establish a methodology for defining assets protected and their degree of risk from wildfire. The assets addressed in the plan are citizen and firefighter safety, watersheds and water, timber, wildlife and habitat (including rare and endangered species), unique areas (scenic, cultural, and historic), recreation, range, structures, air quality. Stakeholders — national, state, local, and private agencies, interest groups, etc. — will be identified for each asset at risk. The assessment will define the areas where assets are at risk from wildfire, enabling fire service managers and stakeholders to set priorities for pre-fire management project work.
4. **Pre-Fire Management.** This aspect focuses on system analysis methods that assess alternatives to protect assets from unacceptable risk of wildland fire damage. Projects include a combination of fuels reduction, ignition management, fire-safe engineering, and forest health activities to protect public and private assets. The priority for projects will be based on asset owners and other stakeholders' input and support. Pre-fire management prescriptions designed to protect these assets will also identify who benefits and who should share in the project costs.

5. **Fiscal framework.** The Board of Forestry and CDF are developing a fiscal framework for assessing and monitoring annual and long-term changes in California's wildland fire protection systems. State, local, and federal wildland fire protection agencies, along with the private sector, have evolved into an interdependent system of pre-fire management and suppression forces. As a result, budget changes that modify the level of service of any of the entities directly affects the others and the services delivered to the public. Monitoring system changes through this fiscal framework will allow the board and CDF to address public policy issues that maximize the efficiency of local, state, and federal firefighting resources.

The following are Fire Plan framework applications:

- Identify for state, federal, and local officials and for the public those areas of concentrated assets that are at high risk.
- Allow CDF to create a more efficient fire protection system focused on meaningful solutions for identified problem areas.
- Give citizens an opportunity to identify public and private assets to design and carry out projects to protect those assets.
- Identify, before fires start, where cost-effective pre-fire management investments can be made to reduce taxpayer costs and citizen losses from wildfire.
- Encourage an integrated intergovernmental approach to reducing costs and losses.
- Enable policy makers and the public to focus on what can be done to reduce future costs and losses from wildfires.

Tuolumne-Calaveras Unit Fire Plan Concept

The Fire Plan Concept in the Tuolumne-Calaveras Unit (TCU) involves a strategic and holistic approach to fire safe planning and project development. Under the “Alliance For A Fire Safe California,” the Unit will work with other governmental agencies, public and private groups, and stakeholders to develop a comprehensive Fire Plan to address the fire problem within the Unit.

Past TCU fire plans were written with some non-CDF involvement, but they mainly concentrated on the CDF fire plan analysis and projects. This year’s plan is being written to conform to the components required in a Community Wildfire Protection Plan (CWPP) and it will serve as the CWPP for all communities in Calaveras County. CWPP development must include the following components:

- 1) **Collaboration:** A CWPP must be collaboratively developed by local and state government representatives, in consultation with federal agencies and other interested parties.
- 2) **Prioritized Fuel Reduction:** A CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure.
- 3) **Treatment of Structural Ignitability:** A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures throughout the area addressed by the plan.

Tuolumne County has already adopted a more detailed CWPP for their county. The 2005 Tuolumne-Calaveras Pre-Fire Management Plan will include the Battalion analysis and projects from their plan. TCU staff will see if Tuolumne County would like to incorporate their CWPP into the TCU Unit Plan in 2006.

The fire safe councils in Tuolumne and Calaveras County play a key role in preparation and implementation of the plan. They act as the primary outreach mechanism for soliciting comments, needs and desires from the public, as well as disseminating fire safe information to the communities they serve. Over the last several years, the councils have been planning and implementing their own projects and also assisting with agency projects.

TCU staff work cooperatively with entities that provide fire and natural resource protection on Local Responsibility Areas (LRA) and Federal lands, to develop a comprehensive fire plan. CDF, local government (city and county), the United States Forest Service (USFS), the US Bureau of Land Management (BLM) and other agencies

have worked cooperatively on pre-fire projects in TCU. Although there are no Resource Conservation Districts (RCD) within Tuolumne or Calaveras Counties, the Natural Resource Conservation Service (NRCS) has formed a Resource Conservation and Development District (RC&D) that includes these counties. This offers an additional avenue to form public/private partnerships to plan and implement projects. The local RC&D is currently working with Tuolumne County staff to form an RCD in Tuolumne County. The RC&D coordinator would begin the process to form an RCD in Calaveras County if interested groups would support its development.

Coordination of the efforts of the agencies and fire safe councils will take place at the meetings of several interagency groups and the three fire safe councils that exist within the Unit. For a detailed description of the councils see the Stakeholder Process-Fire Safe Council section of this document. Within the Fire Safe Council framework, members (agencies, groups, citizens, etc.) can work together with the Board of Supervisors and local fire districts to develop fire safe measures, plans and projects within their respective counties.

Existing programs and treatment methods will be used to implement the projects that are developed through the fire plan process. One of the most commonly used programs will be CDF's Vegetation Management Program (VMP). The VMP Program allows CDF to enter into agreements with landowners (private or federal, state, local govt.) to assist them in performing fuel modification projects such as prescribed burns, manual or mechanical brush clearing, biomass reduction, and fuel break construction. CDF's defensible space inspections will be used to ensure that property owners have adequate clearance of flammable vegetation around their structures. This program will help reduce the structure ignitability of homes and businesses in the area. Timber harvesting of over-dense forest stands will be encouraged to reduce the fuel build-up, which leads to large, catastrophic wildfires. Demonstrations of the above projects will be used to educate the public on their importance in creating a fire safe environment in and around their communities and homes.

CDF was able to get funding for use on fuel reduction projects through California's Proposition 40 (Prop 40), the clean water initiative. Fire safe councils and other local government entities can tap into these funds to use for their fire safe projects by submitting applications on the State Fire Safe Council Grant Clearinghouse web site. Private landowners can also apply for funding to improve their forest covered land through CDF's California Forest Improvement Program (CFIP). Through CFIP, CDF can enter into agreements with small forest land owners (less than 5,000 acres) where CDF provides 75% to 90% of the funding to perform forest improvement work on cooperators' land. This work can include thinning, site preparation for planting trees, fuel reduction work and many other forest improvement efforts. The VMP Program will also be used to implement Prop 40 projects.

For an area in which a Fire Plan Project is proposed, the first objective is to isolate the assets at risk, while the second objective is to mitigate the condition that is the agent causing the risk. This can be accomplished in a single project or a series of projects over time.

Tuolumne-Calaveras Fire Plan Concept

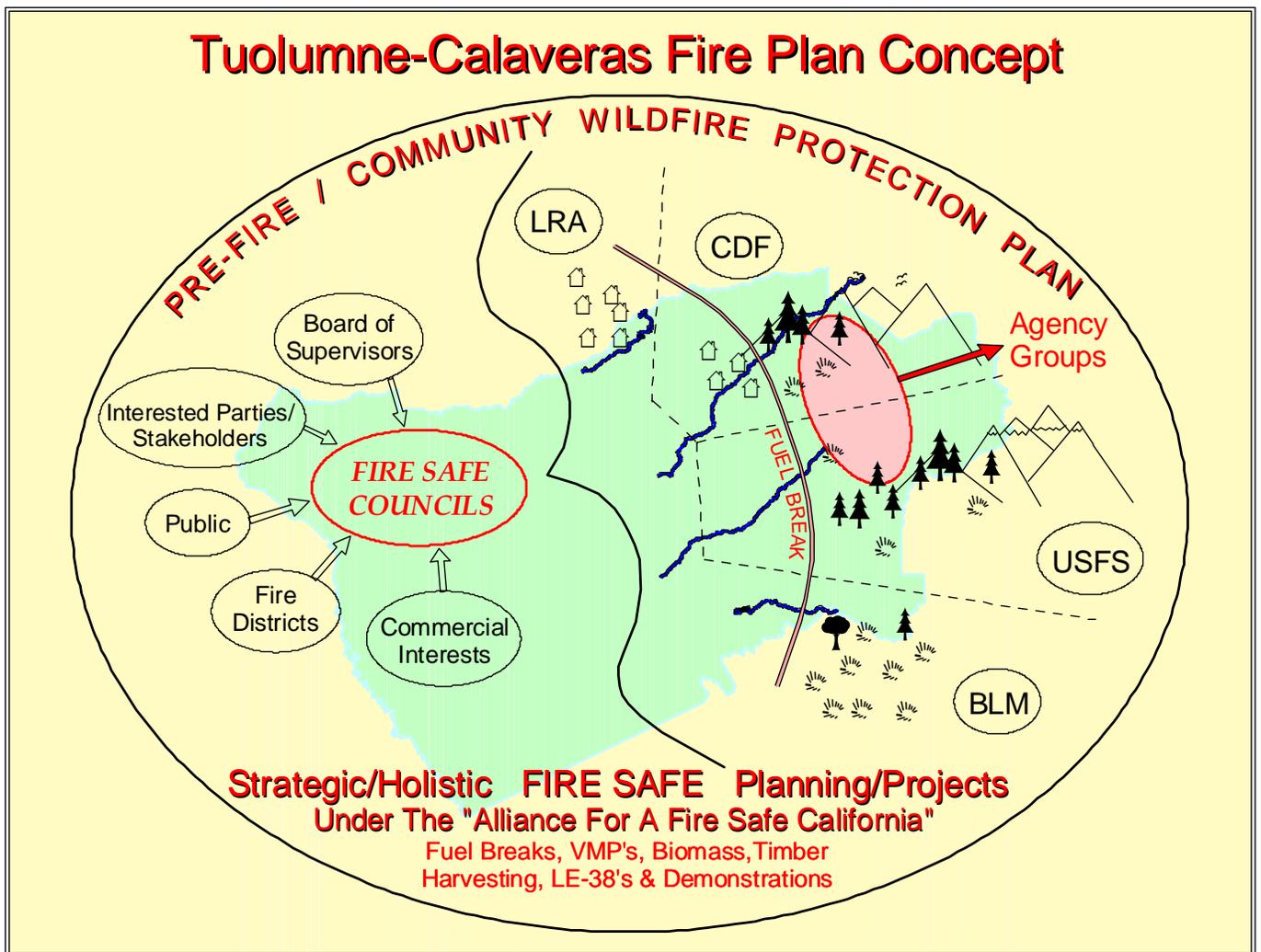


Figure 1: Tuolumne-Calaveras Fire Plan Concept

Establishment of fuel breaks and/or fire safe communities (PRC 4290 and 4291) will be the first step to isolate assets at risk from adjacent hazardous wildland vegetation (fuels). Once those are established, they will be used as an anchor point for fuel modification efforts for the adjoining areas through manual and mechanical treatments, prescribed burning and timber harvesting. Utilizing these measures, the objective is to be able to confine future wildfires to the watershed drainage of origin that is bounded by the fuel breaks. The Fire Plan process will be utilized for the maintenance of the established fuel breaks.

All of these measures will enable multiple agencies and private citizens to become involved in planning and implementing fire safe projects. By involving other agencies and the general public, jurisdictional boundaries will no longer stall implementation of strategic projects.

Tuolumne-Calaveras Unit Description

Geographic

The Tuolumne-Calaveras Unit is located in Central California. It includes all of Tuolumne County except those portions within Yosemite National Park, Calaveras County and the eastern portions of San Joaquin and Stanislaus Counties. The entire Unit encompasses 2,869,021 acres. Tuolumne, Calaveras, San Joaquin and Stanislaus Counties cover 1,030,812, 663,000, 596,396 and 578,813 acres respectively within TCU. There are approximately 1,173,320 acres of State Responsibility Area (SRA) lands within this area. SRA is defined as forest, brush or grass covered lands where CDF is responsible for wildland fire protection. SRA is mainly composed of state and private land holdings. The lands outside the SRA are either federally owned (FRA), within an incorporated city or are areas that don't meet the criteria to be considered SRA. Lands that are neither SRA nor FRA are considered LRA (Local Responsibility Area) and wildland fire protection is borne upon a local government entity (city, county, fire district, etc.).

Land owners of both SRA and NON-SRA lands within the Unit include: United States Forest Service (USFS-690,017 acres); Bureau of Land Management (BLM-82,190 acres); US Fish and Wildlife Service (USFWS-10,279 acres); Bureau of Indian Affairs (BIA-356 acres); Military (24,207 acres); State of California (16,443 acres); and private (2,040,346 acres).

There are three major watersheds in the Unit, the Mokelumne, Stanislaus and Tuolumne Rivers. Numerous water and power utilities make use of the resources of these rivers and their tributaries as well as the agriculture industry within the Unit.

There are 5 east-west state highways in the Unit: 12, 26 and 4 in Calaveras County; 108 and 120 in Tuolumne County. State Highways 49, 99 and Interstate 5 are the only north-south highways in the Unit. The majority of the towns and population in the area exist on or near these major transportation corridors.

Socioeconomic

The approximate population within the CDF Direct Protection Area (DPA) in TCU is 103,500. In 2004, the US census Bureau reported an estimated population of 45,939 in Calaveras County and 56,962 in Tuolumne County. Almost the entire population within these counties is in the CDF DPA. The DPA in San Joaquin and Stanislaus Counties is less dense and only provides a minor contribution to the population in the CDF DPA.

In Tuolumne County, the highest population density is found on the Highway 108 corridor from Jamestown to Twain Harte. The Groveland and Lake Don Pedro areas also have a high population density. Higher population densities in Calaveras County are

more scattered with the greatest densities in the upper Highway 4 corridor from Murphys to Big Trees Village, from Valley Springs to Jenny Lind, and in the Copperopolis area. Other areas of more dense population exist in Angels Camp, San Andreas, Mokelumne Hill, Mountain Ranch and West Point.

The population within the Unit increases significantly during the fire season for several reasons. Many vacation homes exist within the Unit that are used more frequently at this time of the year. This area has many recreational opportunities, which draw people from all over the state and country. Seasonal workers come to this area in search of summer jobs, thus increasing the resident population. Since the majority of fires are human caused, this increase in population usually results in more wildland fire ignitions.

The major industries that support the local economy include tourism, viticulture, timber, cattle, recreation and construction. A variety of other small businesses exist to support the needs of the populace and contribute significantly to the local economy. All of these industries have been affected at one time or another when wildfires have burned in the Unit. Hundreds of thousands of dollars have been lost both directly and indirectly due to these fires.

Fire Environment

The fire environment in the Tuolumne-Calaveras Unit is conducive to large, damaging fires as shown by the major fire history map. Over 38% of the CDF DPA lands are covered with high hazard fuels (brush and timber). The topography contains many steep canyons, which, in some cases, are inaccessible. Fighting fires with bulldozers is difficult, if not impossible, in much of the Unit due to this rugged terrain. Severe fire weather occurs on 35% of the days during the fire season in much of the Unit. This, coupled with the rugged terrain and the high hazard fuels, increases the probability that large damaging fires will occur on a regular basis.

CDF Facilities and Resources

The Tuolumne-Calaveras Unit manages 15 CDF fire stations, the Tuolumne County Fire Department, 2 conservation camps, 1 conservation camp training center, an air attack base and a helitack base. During peak fire season, TCU staffs 21 Schedule "B" engines, 10 fire crews, 2 bulldozers, 1 air attack, 2 air tankers, 1 helicopter, and 1 Tuolumne County Schedule "A" engine. Schedule "B" equipment are those resources that are directly funded by state dollars to protect SRA lands. Schedule "A" equipment is owned by a local government entity, but through a contract the entity pays for CDF personnel to staff the equipment. In addition to dispatching CDF resources, TCU's Emergency Command Center (ECC) handles dispatching for all of the local fire departments in Tuolumne and Calaveras Counties and the Bear Valley Fire Department in Alpine County. The ECC handled over 10,800 calls in 2004.

Fire Protection Responsibilities

To reduce fire protection costs, the CDF and Federal wildland fire protection agencies have entered into various agreements that define Direct Protection Areas (DPA) for each agency. The DPA for an agency is the geographic area where that particular agency is responsible for providing wildland fire protection, regardless of land ownership within the area. As an example, a chunk of private land (SRA) well within the national forest boundary (FRA) may be protected by the USFS (USFS DPA) due to the close proximity of a USFS fire station. The same goes for isolated USFS land (FRA) surrounded by private land (SRA), which may be protected by CDF (CDF DPA) since it is surrounded by CDF DPA. On a statewide basis, CDF and the federal agencies attempt to balance the acreage of these trade-offs between each set of agencies so that no single agency is protecting more of the other agencies' land than the reciprocating agency. This process is termed the "Balancing of Acres."

The CDF DPA in TCU covers 1,253,551 acres from the foothills of eastern San Joaquin and Stanislaus Counties to above 6000 feet in elevation in the Central Sierra Nevada mountain range. The CDF DPA in Tuolumne, Calaveras, San Joaquin and Stanislaus Counties covers 386,316, 623,621, 64,437 and 179,174 acres respectively in each county. Through the balancing of acres agreements, the Tuolumne-Calaveras Unit provides direct wildland fire protection on lands owned by the USFS (73,487 acres), BLM (82,023 acres), BIA (356 acres), and Military (23,157 acres). Conversely, the USFS and BLM provide wildland fire protection on 89,211 and 19,912 acres respectively of CDF SRA lands within the Unit.

Besides CDF, the USFS has wildland fire protection responsibilities on 678,853 acres within the Unit. Although county and local government fire departments do not have a statutory wildland fire protection responsibility, they do respond to wildfires with their equipment to assist CDF and USFS firefighting resources.

TCU is administered by the Unit Chief whose headquarters is co-located with the San Andreas Forest Firefighting Station (FFS). TCU DPA is divided into North and South Divisions, each of which is managed by a CDF Division (aka Assistant) Chief. The North Division is essentially in Calaveras County except for the area north of the Middle Fork Stanislaus River in Tuolumne County, which is more accessible from Calaveras County. Eastern San Joaquin and a small section of northeastern Stanislaus County are also in this division. The South Division includes the remainder of Tuolumne County and Eastern Stanislaus County. The Tuolumne County Fire Department is also administered by the South Division Chief through a contract between Tuolumne County and CDF.

The North Division is divided into four sub-areas called Battalions, each of which is administered by a CDF Battalion Chief. Battalion 11 covers from Mokelumne Hill to Wallace on the north, and from Jenny Lind to San Andreas on the south. The Valley

Springs and San Andreas FFS's are within this Battalion. Battalion 12 covers the lower Highway 4 corridor from Eastern Stanislaus County to Murphys. The Copperopolis, Altaville and Murphys FFS's are administered by this Battalion Chief. Battalion 13 is the upper Highway 26 area and includes the communities of Glencoe, West Point, Wilseyville, Railroad Flat and Mountain Ranch. This Battalion includes the West Point, Esperanza (near Mountain Ranch) and Hermit Springs FFS's. Battalion 14 is the upper Highway 4 area from Forest Meadows to Black Springs Road and also the area in Tuolumne County north of the Middle Fork Stanislaus River. Arnold FFS, Skull Creek FFS and Blue Mountain Lookout are within this Battalion. Vallecito Conservation Camp, the main office for the North Division Chief, is also in the North Division.

The South Division Chief oversees the Tuolumne County Fire Department and CDF operations in Battalions 15 and 16 in the South Division, as well as at the Columbia Air Attack Base. Battalion 15 covers the upper Highway 108 corridor from Jamestown to Long Barn and includes the Sonora and Twain Harte FFS's. Battalion 16 includes the Highway 120 and 132 areas in the Unit and the Groveland, Green Springs and Blanchard FFS's. Baseline Conservation Camp and Sierra Conservation Center are also in the South Division.

In TCU there are eleven fire districts in Calaveras County and eight in Tuolumne County. These districts are primarily responsible for structural fire protection (residential, commercial, public, etc. buildings) within their jurisdictions and also respond to wildland fire, medical, public assist, hazardous material and a variety of other emergency calls. As noted above, CDF relies heavily on district equipment to supplement CDF equipment on wildland fires. CDF reciprocates this system of mutual aid by responding to all emergency calls within the districts, if they so desire this service while CDF equipment is staffed during fire season. The closest equipment, whether CDF or fire district, is dispatched to each emergency incident in the Unit.

The fire districts in Calaveras County include: West Point; Mokelumne Hill; Foothill; Jenny Lind; San Andreas; Central; Copperopolis; Altaville-Melones; Angels Camp; Murphys; and Ebbetts Pass. 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 cover the areas of the communities that they are named after and then some. The Foothill Fire District includes the Highway 12 corridor from Valley Springs to Wallace. The Central Fire District covers the Mountain Ranch, Railroad Flat areas.

The fire districts in Tuolumne County include: Columbia; Jamestown; Sonora City; Tuolumne; Twain Harte; Mi-Wuk; Strawberry and Groveland Community Services District. Most of the district boundaries incorporate the general area of the community that they are named after. Areas in Tuolumne County outside of the fire districts are protected by the Tuolumne County Fire Department, which is administered by CDF

through a contract with the county. All of the Tuolumne County fire stations are staffed by volunteer firefighters except the Mono Village Station. This station is staffed with a minimum of two full time CDF personnel 24 hours a day, 7 days a week (24/7). Jamestown Fire District has contracted with CDF to provide one CDF Fire Captain to perform the administration duties for the department.

Once fire season ends each year, CDF enters into a contract with Tuolumne County to continue staffing CDF fire engines with CDF personnel at Twain Harte, Sonora and Blanchard CDF Firefighting Stations. The CDF equipment responds to emergency calls in Tuolumne County through the fall, winter and spring until regular CDF staffing occurs again when fire season begins in the spring. This process originated in Amador County and has been termed and “Amador Plan” agreement. Many counties throughout California rely on this service to provide fire protection when not in fire season. In the past, Calaveras County has taken advantage of this service, but currently there are no active contracts.

