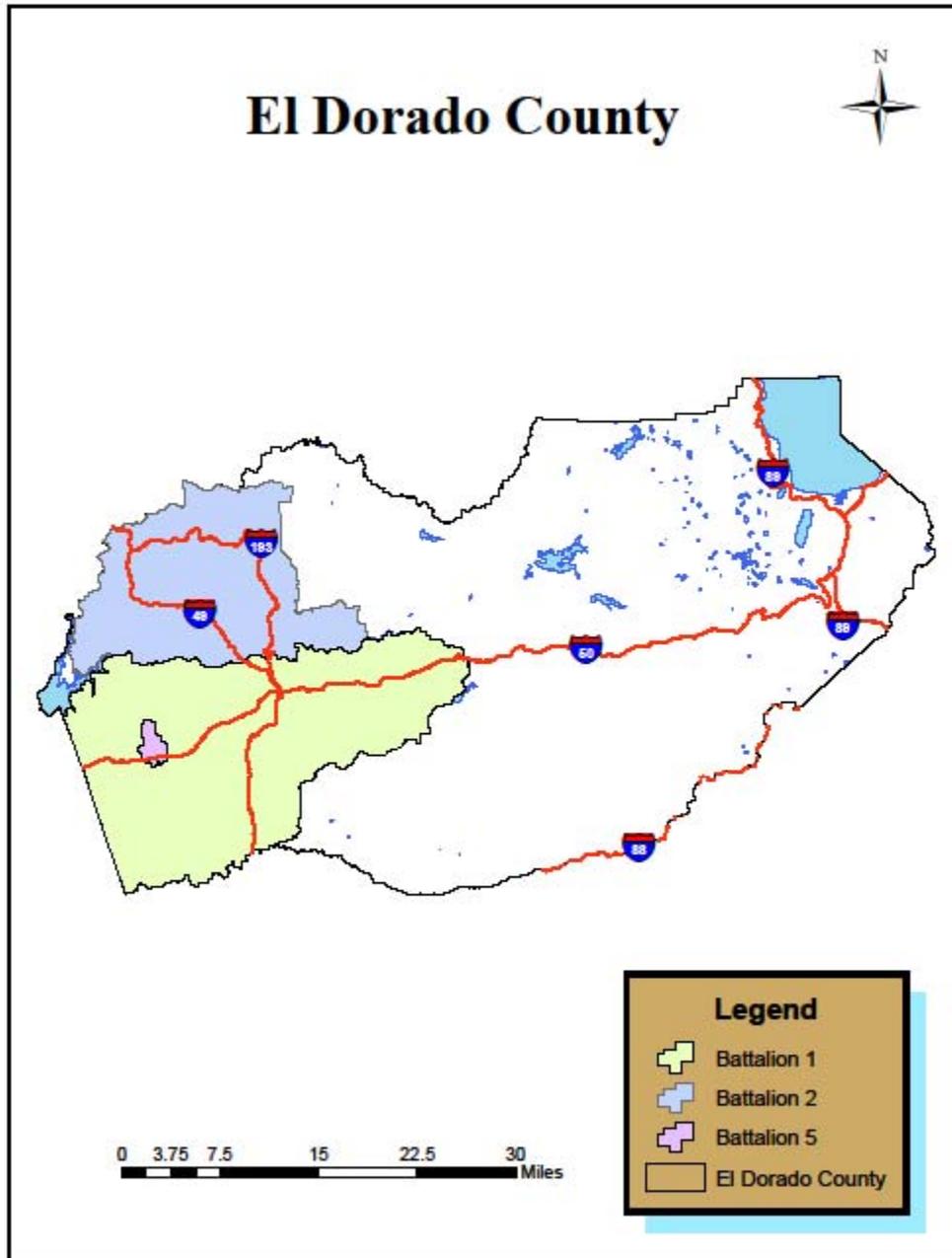


El Dorado County

El Dorado county consists of 459,863 acres of CAL FIRE Direct Protection Area and is divided into all or portions of CAL FIRE Battalion's 1,2,3, and 5 as shown below.



Battalion 1 - Battalion Chief Brian Estes

Battalion 1 encompasses approximately 309,544 acres in El Dorado and Sacramento counties. El Dorado County communities within the Battalion include Camino, Diamond Springs, El Dorado, El Dorado Hills, Pioneer, Logtown, Latrobe, Nashville, Cameron Park, Placerville, Pleasant Valley, Pollock Pines, Rescue, and Shingle Springs.

Battalion 1 is historically the most active Battalion in the Amador El Dorado Unit in regards to vegetation fire response and has the highest urban interface population density in the Amador El Dorado Unit. In 2009, Battalion 1 had the highest number of vegetation fire ignitions in the Amador El Dorado Unit. Within Battalion 1 there are two CAL FIRE facilities and two fire lookout/communication infrastructure sites.

Camino Fire Station 20 and Amador El Dorado Unit Headquarters

Camino Fire Station 20 houses 1 frontline Type III Fire Engine and one reserve Type III fire engine. In addition, it houses the Battalion utility vehicle. Camino Fire Station was built in 1936 with additions completed in the 1950's and 1960's. Station 20 was built for the protection of, and continues to provide service to the surrounding lands owned by private timber companies. The Fire Station shares the compound with the Unit Administrative Headquarters, the Unit Emergency Command Center, the Unit Expanded Dispatch Center, and the Regional DGS Radio Technician Offices. In addition, the facility houses Mt. Danaher Fire Lookout. This lookout is not currently in service, but is registered with the National Historic Lookout Association and is the tallest free standing lookout tower in California.

Camino Fire Station 20 is responsible for all risk response to the areas including Camino, Pollock Pines, Placerville, Pleasant Valley, the American River Canyon / Highway 50 corridor and is the 2nd due CAL FIRE engine into the Lake Tahoe Basin.

Camino Fire Station 20 responded to 344 incidents between May 1st 2009 and Nov. 1st, 2009. This represents the timelines that the fire station is fully staffed. Of those 344 incidents, 38 were vegetation fires that Camino Fire Station was the first engine due and 43 were fires in the Battalion that the engine assisted on. The Station responded to another 37 vegetation fires that were either in neighboring Battalions or accounted for a Statewide or Regional response.

El Dorado Fire Station 43 and North Division Automotive Shop

El Dorado Fire Station 43 houses two frontline Type III fires engines and 1 type II Fire Dozer and Transport. It also houses the Dozer Tender Unit and is the Battalion Chief Headquarters. The Fire Station shares the compound and is responsible for the North Division Automotive Shop. This facility serves as the Fleet Equipment Manager office and is staffed with 1 full time mechanic. The shop provides fleet support for all of the North Division as well as the staff vehicles at the Unit Administrative Headquarters and assists with support to the Cameron Park Fire Department Schedule A contract.

El Dorado Fire Station 43 is responsible for all risk response to the areas including Sacramento County, El Dorado Hills, Shingle Springs, Latrobe, Cameron Park, Placerville, El Dorado, Diamond Springs, Gold Hill, Nashville, and Rescue.

El Dorado Fire Station 43 responded to 703 incidents between May 1st 2009 and Nov. 1st, 2009. This represents the timelines that the fire station is fully staffed. Of those 703 incidents, 43 were vegetation fires that El Dorado Fire Station was the first engine due and 38 were fires in the Battalion that the engine assisted on. The Station responded to another 61 vegetation fires that were either in neighboring Battalions or accounted for a Statewide or Regional response.

The Battalion enjoys cooperative relationships with seven local fire agencies that lay within Battalion 1. In addition, the Battalion values a close working relationship with the federal forest agencies including the USDA Forest Service and the USDI Bureau of Land Management.

The Local Fire Agencies that lie within Battalion 1 boundary lines are:

- El Dorado County Fire Protection District
- El Dorado Hills Fire Department
- Cameron Park Fire Department
- Diamond Springs-El Dorado Fire Protection District
- Rescue Fire Protection District
- Latrobe Fire Protection District
- Pioneer Fire Protection District.

Battalion 1 Hazard / Target Areas

The fuels within Battalion 1 are diverse, and include approximately 18% timber, 33% brush, and 49% grass/oak woodland.

Like many areas in the Sierra Nevada's the Battalion contains a significant wildland-urban interface problem. All communities within Battalion 1 SRA are evaluated using the following general and specific criteria to determine their Hazard/Target status:

- Potential for life loss
- Potential for property loss
- Potential for high community consequence (historical, environmental, infrastructure, etc.)
- Fuel types and fuel loading
- Ingress and egress
- Stakeholder collaboration

All communities within Battalion 1 meet the Target Hazard Criteria, some to a greater or lesser degree than others listed. According to FRAP data, approximately 95% of Battalion 1 is rated as high or extreme in SRA fire severity ratings.

Battalion 1 Ignition Statistics and Mitigation Measures

Fire cause statistics for 2009 show the following percentages for fire cause:

- Equipment Use: 9%
- Debris Burning: 21%
- Children Playing with Fire: 10%
- Arson: 4%
- Vehicle Fire Exposure: 21%
- Electrical Power Lines: 9%
- Smoking: 4%
- Campfires: 2%
- Lightning: 1%
- Miscellaneous: 17%

Ignition Plan Mitigations include education during the burn permit process, target group education, and defensible space inspections. Battalion 1 issued over 1,000 LE-62 residential burn permits in 2009. Additionally, Battalion 1 performed over 500 LE-100 defensible space inspections and over 400 LE-100 inspections specific to requests from Insurance Companies for coverage continuation. Battalion 1 assisted the Fire Prevention Bureau in providing over 220 staff hours of public education to El Dorado County in 2009.

Battalion 1 Vegetation Management Projects:

Independence Fuel Break

Federal and state defensible fuel zone/shaded fuel break project for the protection of the Pollock Pines area in the vicinity of Forbay Road. This project is a collaborative effort to treat federal lands while creating an opportunity to treat private lands that are isolated between the Federal lands. The El Dorado National Forest has been conducting thinning and prescribed fire operations on the Independence Fuel Break as a high priority for their new fuels management strategy. CAL FIRE was approached by the USFS to assist in project implementation for the private lands that lie within the federal lands project. The federal agencies are unable to directly conduct work on private lands; however, they are able to provide funding sources.

CAL FIRE chose to utilize the California Forest Improvement Program (CFIP) for project implementation. CFIP provides the statutory framework to conduct the type of work required to fulfill the project objectives and has an excellent mechanism to manage the administration of the project work. CFIP is currently an unfunded program; however, there is the ability to move Federal grant funds through the CFIP program.

The Unit has been awarded two National Fire Plan Grants to fund project work through the use of the California Forestry Improvement Program (CFIP). The grants total \$212,000, which is administered through the already in place CFIP mechanism.

Cooperators

CAL FIRE Amador-El Dorado Unit
USFS El Dorado National Forest
Non-Industrial Private Landowners

Sly Park Fire Safe Project

This project is 1000 acre fuels treatment project that prescribes the creation of a Defensible Fuels Zone/shaded fuel break between Park Creek Road and Sly Park Reservoir with the utilization of broadcast burning as well as hand treatment by CAL FIRE Growlersburg crews. This project provides a fuel break for the surrounding communities and natural resources around Sly Park Reservoir. Landowners, situated along the border of the project, will be allowed to participate in the Sly Park Fire Safe Project II by including their residential parcels in the fuel break.

This project has year round mitigation measures with handcrew work from Growlersburg Camp and is accelerated in the fall with prescribed fire use from Battalion resources.

Cooperators:
CAL FIRE Amador-El Dorado Unit
El Dorado Irrigation District
Non-Industrial Private Landowners

Last Chance Fuels Reduction Project

Federal and state defensible fuels zone/shaded fuel break project for the protection of the community of Grizzly Flats within the Cosumnes River watershed. This project is a collaborative effort to treat federal lands while creating an opportunity to also treat private lands that are isolated between the Federal lands. The El Dorado National Forest has been conducting thinning and prescribed fire operations on the Last Chance Fuel Break as a high priority for the Federal fuels management strategy. CAL FIRE was approached by the USFS to assist in project implementation for the private lands that lie within the federal lands project. The federal agencies are unable to directly conduct work on private lands; however, they are able to provide funding sources.

CAL FIRE chose to utilize the California Forest Improvement Program (CFIP) for project implementation. CFIP provides the statutory framework to conduct the type of work required to fulfill the project objectives and has an excellent mechanism to manage the administration of the project work. CFIP is currently an unfunded program; however, there is the ability to move Federal grant funds through the CFIP program.

The Unit has been awarded National Fire Plan Grant funding to conduct project work through the use of the California Forestry Improvement Program (CFIP) in cooperation with small non-industrial landowners. The grant total is \$198,000, which is administered through the already in place CFIP mechanism.

Cooperators:
Amador-El Dorado Unit

Folsom Lake / El Dorado Hills Fire Safe Project

This project includes the establishment of defensible fuel zones at the boundary of the Folsom Lake State Recreation Area and the private parcels that have homes with inadequate set backs. The intent is to provide defensible zones that start on private lands and extend 100-300 feet into the State Recreation Area. This will provide adequate protection to fire personnel and residents from a fire that originates within the Folsom Lake State Recreation Area.

Cooperators:
CAL FIRE Amador-El Dorado Unit
El Dorado Hills Fire Department
Bureau of Reclamation

Pine Hill Infrastructure Protection

This project centers around providing defensible space around the historical Pine Hill Fire Lookout and critical communications infrastructure on Pine Hill. Multiple communications towers service fire and law enforcement agencies in El Dorado and Sacramento Counties as well as a statewide microwave link for all 21 CAL FIRE Emergency Command Centers in the state.

Cooperators:

CAL FIRE Amador-El Dorado Unit
Department of General Services
Pine Hill Cooperators Local Agreement

Future Battalion 1 Projects:

- Mountaineers CFIP (Pollock Pines)
- Thorne/Hayden CFIP (Pollock Pines)
- Goldridge CAG (Pollock Pines)
- Sandridge CAG (Nashville)
- Logtown CAG (Logtown)
- Greenstone CAG (Diamond Springs/Rescue)
- Chrome Ridge CAG (Pleasant Valley)

Battalion 2 – Battalion Chief Mark Brunton

CAL FIRE Battalion 2 lies primarily on the Georgetown Divide in northern El Dorado County. The communities of Georgetown, Garden Valley, Pilot Hill, Mosquito, Kelsey, Coloma, and Auburn Lake Trails are within the Battalion. The total area of the Battalion is 128,454 acres. Fuel types within the Battalion range from 19% timber, 54% brush, to 27% grass/oak woodland.

Like most Sierra Nevada areas the Battalion has a significant wildland-urban interface problem. The majority of construction in the area took place prior to adoption of the Fire Safe Regulations. This has led to areas with inadequate ingress/egress routes and insufficient defensible space clearance around structures. This problem was confirmed with the destruction of fourteen homes in the 1994 Kelsey fire.

Battalion 2 consists of two CAL FIRE stations, a Conservation Camp, and one un-staffed lookout. Garden Valley station and Pilot Hill station are each two engine stations, with Growlersburg Conservation Camp, located outside of Georgetown, providing five hand crews.

Five local agency fire districts lie, at least partially, within Battalion 2. These fire districts are; Garden Valley, Georgetown, Mosquito, Rescue, and El Dorado County Fire. A close working relationship is maintained with each district as well as with the USFS.

Current Battalion 2 Projects:

Auburn Lake Trails Fire Safe Project

The Auburn Lake Trails subdivision is situated at the rim of the American River canyon at the edge of the lake that would have been formed by the Auburn Dam. Exclusion of fire and the heavy public use below the subdivision create a very hazardous condition with respect to the potential for ignition. The topography, fuels, and significant numbers of homes create a combination of factors that will cause significant resource damage as well as a major risk to life safety within the community.

The primary strategy is to establish defensible fuel zones around and within the subdivision. CAL FIRE fire crews will conduct VMP project work on federal lands adjoining the subdivision. Private land owners will be asked to participate in the VMP so fuels reduction will continue on the private lands between homes and the federal lands project area. The property owner's association retains control of all the common area within the subdivision and is the primary partner with the Auburn Lake Trails VMP. Currently CAL FIRE has treated approximately 200 acres of federal and private lands.

Cooperators/Collaborators

CAL FIRE AEU and NEU

ALT Fire Safe Council and Homeowners Association

California Department of Parks and Recreation

United States Department of the Interior, Bureau of Reclamation

Bacchi Ranch VMP

The Bacchi Ranch is a private land holding of approximately 3000 + acres centered in Battalion 2. The ranch has been held by the Bacchi family for over 5 generations. The land is rich with cultural history. The sites are in the heart of the California Gold Rush Discovery, as well as Native American inhabitation prior, and post that event. The ranch is used as a working cattle ranch and landholding. The intent of the VMP is three fold. 1) Training site for CAL FIRE and cooperative agencies in wildland fire suppression. 2) Range land improvement. 3) Wildlife habitation improvement.

The use of the property by CAL FIRE for training provides a unique opportunity for working in the various terrain and fuels experienced by CAL FIRE suppression personnel. The property contains fuels from timber to brush to grass/ oak woodland. Working with cooperating agencies, CAL FIRE is able to maintain a high level of preparedness in all of it's suppression capabilities. Use of live fire in fuels modification assists in this training.

Range improvement consists of the reduction of noxious weeds (i.e. star thistle and Medusa Head) to native grasses improves the feed for the land owner's cattle and restores the natural habitat. Burning of the noxious weeds is utilized in the project. As already noted, this process also provides invaluable live fire training of CAL FIRE personnel as well as their cooperators.

Wildlife habitation improvement is accomplished through the use of range improvement as well as the by products of the training element. Line cutting by CAL FIRE Crews as well as fuels conversion (crushing of brush fields to range land) improves the habitat of a myriad of native wildlife species.

All of these elements of the project lend to the reduction of fuels on the periphery of the ranch providing a fire break or fuels reduction zone thereby reducing the ability of fire from escaping the property onto neighboring property and wildland-urban interface zones and vice versa.

This project is located in a High Hazard Target area of the battalion.

Cooperators/Collaborators

CAL FIRE AEU

Bacchi Ranch LLC

Georgetown Divide Fire Service Agencies

Finon Lake VMP

The Finon Lake VMP is located around Finon Lake in the community of Mosquito. The primary purposes of the VMP are to reduce fuels in a highly recreated lake that is adjacent to the remote community of Mosquito. The VMP utilizes live fire training for CAL FIRE and cooperators to reduce the fuel around Finon Lake. This VMP is a newly approved VMP. This VMP is located in a High Hazard Target area for the battalion.

Cooperators/Collaborators

CAL FIRE AEU
Mosquito Fire District
Mosquito Fire District Firefighters Association

Battalion 2 Hazard/ Target Areas

The entire area covered within Battalion 2 would be considered a Target Area with significant potential. As noted earlier, the Divide has a significant fire history that has proven to challenge fire suppression efforts over the years. With the increase in population within the Divide, the potential for increased ignitions are ever growing. Some Target Areas include but are not solely limited to:

- Community of Mosquito
- Community of Garden Valley and surrounding communities
- Community of Georgetown and surrounding communities
- Auburn Lake Trails
- Major travel corridors noted below
- American River Drainage
- Coloma State Park

Future Battalion 2 Projects:

Future projects within the boundaries of Battalion 2 should focus on the following areas:

Continued work on the ALT Fuels project including roadside clearing and ALT greenbelt/ common space areas.

VMPs with major landholders to reduce fire hazards and noxious weeds.

Roadside clearances along all major routes of travel on the Divide.

- Hwy 49 corridor
- Hwy 193 corridor
- Rock Creek Road
- Mosquito Road
- Sliger Mine Road

- Spanish Dry Diggings Road
- Wentworth Springs Road
- Marshall Road
- Bayne Road
- Shoo Fly Road
- Bear Creek Road
- Spanish Flat Road
- Rattlesnake Bar Road
- Salmon Falls Road

Continuous Defensible Space inspection program (PRC 4291)

Battalion 2 Ignition Management Plan

Fire season 2009 statistics showed that the three leading causes of wildland fire ignitions were as follows:

- Debris Burning
- Vehicle
- Electrical Power

The number of fires caused by each were:

- Debris Burning 11
- Vehicle 8
- Electrical Power 7

Acres burned by each category were as follows:

- Debris Burning 1.8
- Vehicle 7.5
- Electrical Power 4.8

The largest amount of acreage lost was due to 5 arson related fires burning 21.5 acres.

Some mitigations to reducing these ignitions are as follows:

Debris Burning: Continued education of the public in appropriate dooryard burning practices and regulations.

Work with Prevention Bureau in increased enforcement of regulations and citations/ cost collection of fires escaping control.

Burned acreage in this category remains static over the past 3 years.

Vehicle/ Power related: Continued public education through Public Safety Announcements in print media/ fliers as to potential hazards of equipment in wildland areas as well as spark arrestor laws/ regulations.

Arson: Continued work by the Prevention Bureau in the development of their investigations of ongoing cases.

With the assistance of the Defensible Space Inspections, fuels treatment, and education, fire spread and damage can be significantly reduced.



Battalion 5 - CAMERON PARK

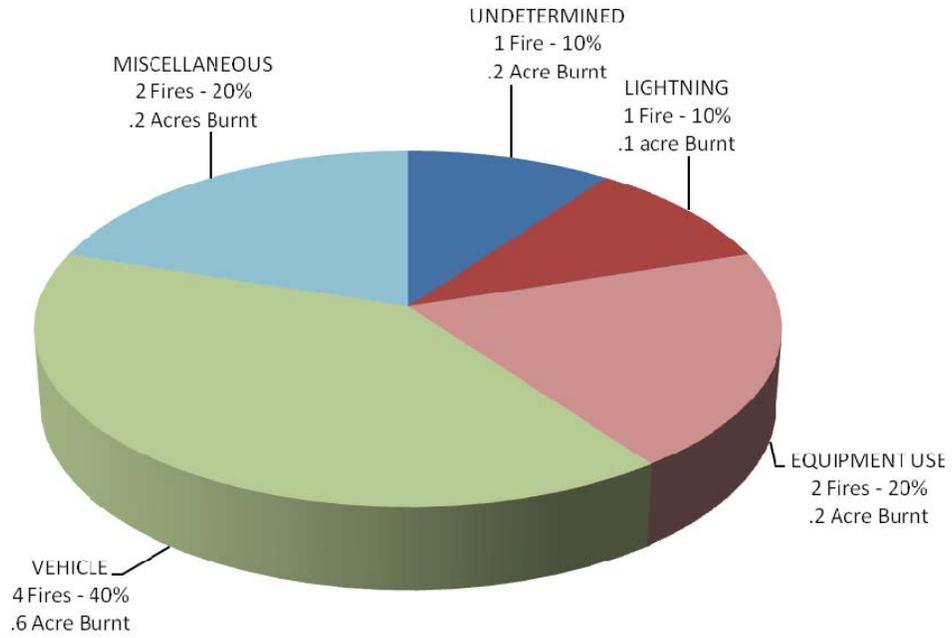
Battalion Chief Joe Tyler

Battalion Chief Mike Webb (Fire Marshall)

General Information

Location:	West Slope, El Dorado County, California
Geographic Coordinates:	W120°-59'-15" ; N38°-41'-02" (@ Cameron Airpark)
Area:	8.5 square miles (5,440 acres)
Terrain:	Foothills
Elevation:	Low 1000' (Cameron Estates) Mid 1250' (Cameron Airpark) High 1600' (Pine Hill Preserve)
Land Use:	Residential (70%); Recreational (10%); Commercial (8%); Nature Preserve (6%); Industrial (3%); Airport (2%); Highway (1%)
Population (2010 Est.):	18,225
Housing:	Single Family – 5,588 Dwelling Units Multifamily – 1,298 Dwelling Units

2009 AEU Battalion 5 Wildland Fires by Cause 10 Fires - 1.2 Acre



Community History

Cameron Park is a foothill community on the west slope of the Sierra Nevada mountain range in El Dorado County. Established as a community services district in the 1960's, the community initially consisted of several hundred residents living around a championship golf course and a small commuter airport located on the Highway 50 corridor.



The Cameron Park Country Club is located in a central valley at the south end of the community. In this view from the clubhouse (facing northwest) a ridge in the background rises approximately 300 feet above the fairway. Many homes are nestled into dense concentrations of highly flammable, mature, brush along Woodleigh Lane and



The adjoining streets located on the top of this ridge. The Cameron Park Airport sits in the central part of the valley immediately north of the golf course. In this view of the runway (facing northwest) surrounding homes can barely be seen through dense stands of oak woodland and brush.

Community Development

Since the Cameron Park Community Services District was formed in 1961, more than 5,500 single family homes, 1200 dwelling units (multi-family complexes), commercial buildings, retail centers, industrial plants, and schools have developed in an eight and one-half square mile area. The population has grown from 400 residents to an estimated 18,225 residents. The community development is in areas where buildings and combustible vegetation are collocated in an environment referred to as a **wildland-urban interface**.



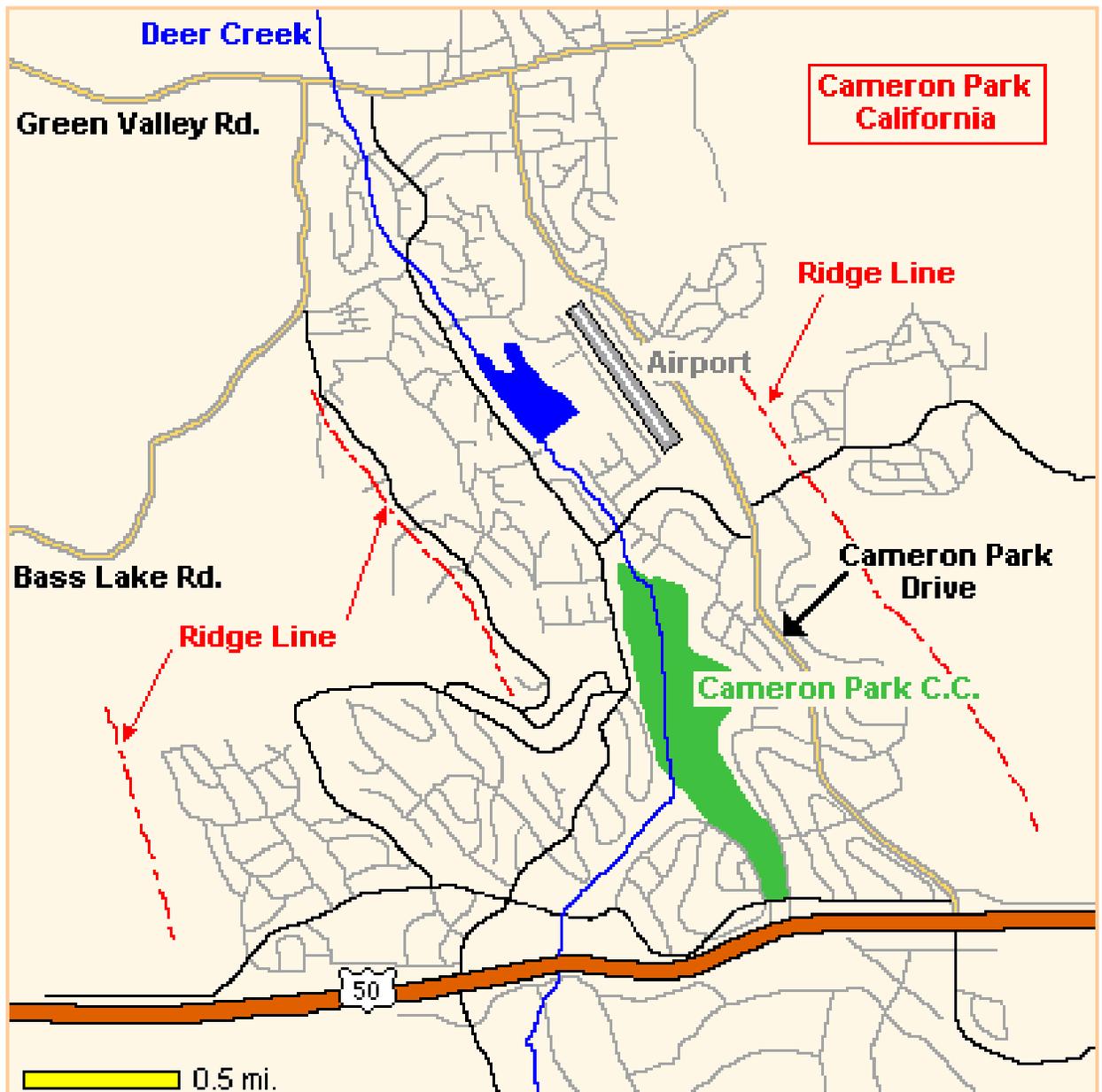
Commercial buildings - In the background is a dense stand of brush near a retirement community and Marshall Hospital. Some private homes can be seen along the ridge top with the brush field below them.

Much of the commercial and residential development in the District is surrounded by a dense stand of native flammable vegetation. In this case Manzanita, Chemise, and Digger Pines are in close proximity to the building.



Geography

The general topography of the area consists of a central valley along the Deer Creek drainage, approximately ½ mile wide with a northwest/southeast orientation. The golf course, airpark, a 40 acre lake, and surrounding residences are the primary features in the valley. The elevation at the valley floor is in the range of 1200 to 1300 feet above sea level. Much of the valley is enclosed between ridges to the east and west sides. The ridge tops rise 300 to 400 feet above the valley floor. Slopes leading up to the ridge tops range from approximately 15% to 35%.



The Wildland-Urban Interface Problem

Development in Cameron Park has created a wildland-urban interface condition in an area with mature stands of brush, and dense oak woodland forests. Manzanita and Chemise are the most common brush species reaching heights greater than 10 feet. There is a large amount of dead material in the brush. Oak species include large varieties such as Blue Oak and Valley Oak. However most of the trees are of the smaller brushy varieties such as Live Oak or Holly Oak.

Some areas of the community, mostly the lower elevations and gentler slopes, include seasonal dry grasses. There are several areas of open space in the community ranging from 5 acres to 300 acres. Some of the open, space such as the golf course, airport, and Cameron Park Lake, have been cleared of flammable vegetation. Much of the open space such as undeveloped lots and preserve lands (Pine Hill Preserve), are covered with flammable vegetation providing areas in and around the community where a large wildfire could become established.



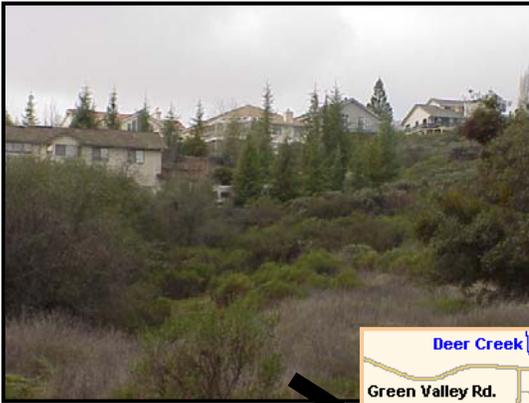
A large patch of brush located on the east side of a ridge, below Woodleigh Lane. To the right a subdivision of new homes has been carved into the hillside. At the bottom of the hill is the Deer Creek drainage which passes through Cameron Park Lake (right side of photo).

Residential development throughout the district includes the valley floor, ridge tops, and the slopes that lead up to the ridge tops. Many of the homes were built in the 1970's and 1980's, before the County of El Dorado adopted standards for roof construction. Homes with wood siding, wood decks, and shake roofs, nestled into heavy fuels on steep slopes are common. Currently, the average density of homes in the community is approximately 1 home per acre (5,180 residences in 8.5 square miles). However, residential lot sizes typically range in the $\frac{1}{4}$ to $\frac{1}{2}$ acre size, providing for densities in some areas of more than four times the average. Many of the residential roads in the community are narrow, winding, and do not support 2-way traffic when cars are parked on the road sides, thus complicating fire suppression and evacuation procedures.

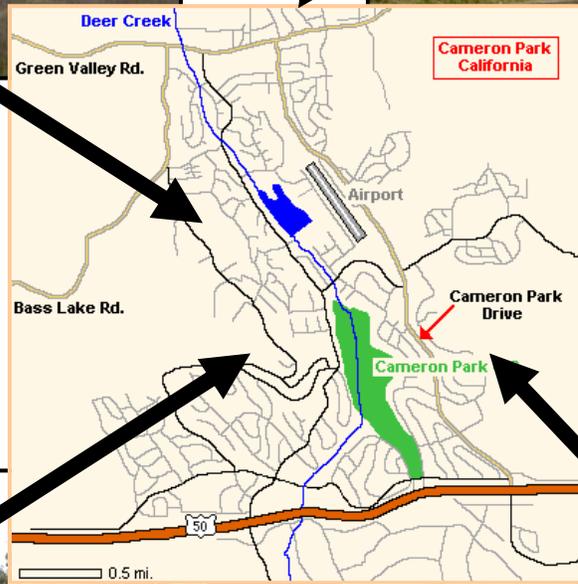
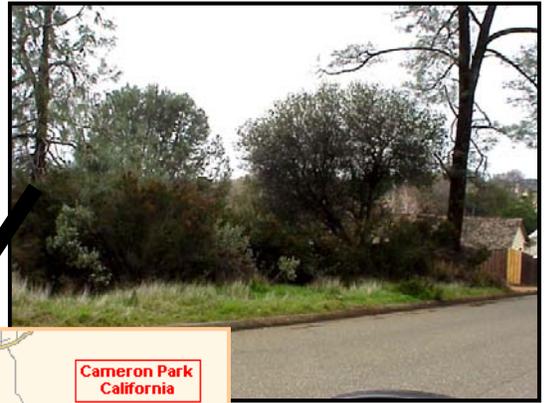
Typical Wildland-Urban Interface Conditions

Although the most recent subdivisions have required fire safe plans, the wildland-urban interface problem remains a hazard throughout the community. Development between 1950 and 1990 typically did not remove or modify combustible vegetation sufficiently to eliminate the fire risk. Newer subdivisions since 1990 have created a fire safe environment within the subdivision, however flammable vegetation often remains around the perimeter. Below are some typical examples of wildland-urban interface conditions in the community.

Woodleigh Lane



Royce Drive



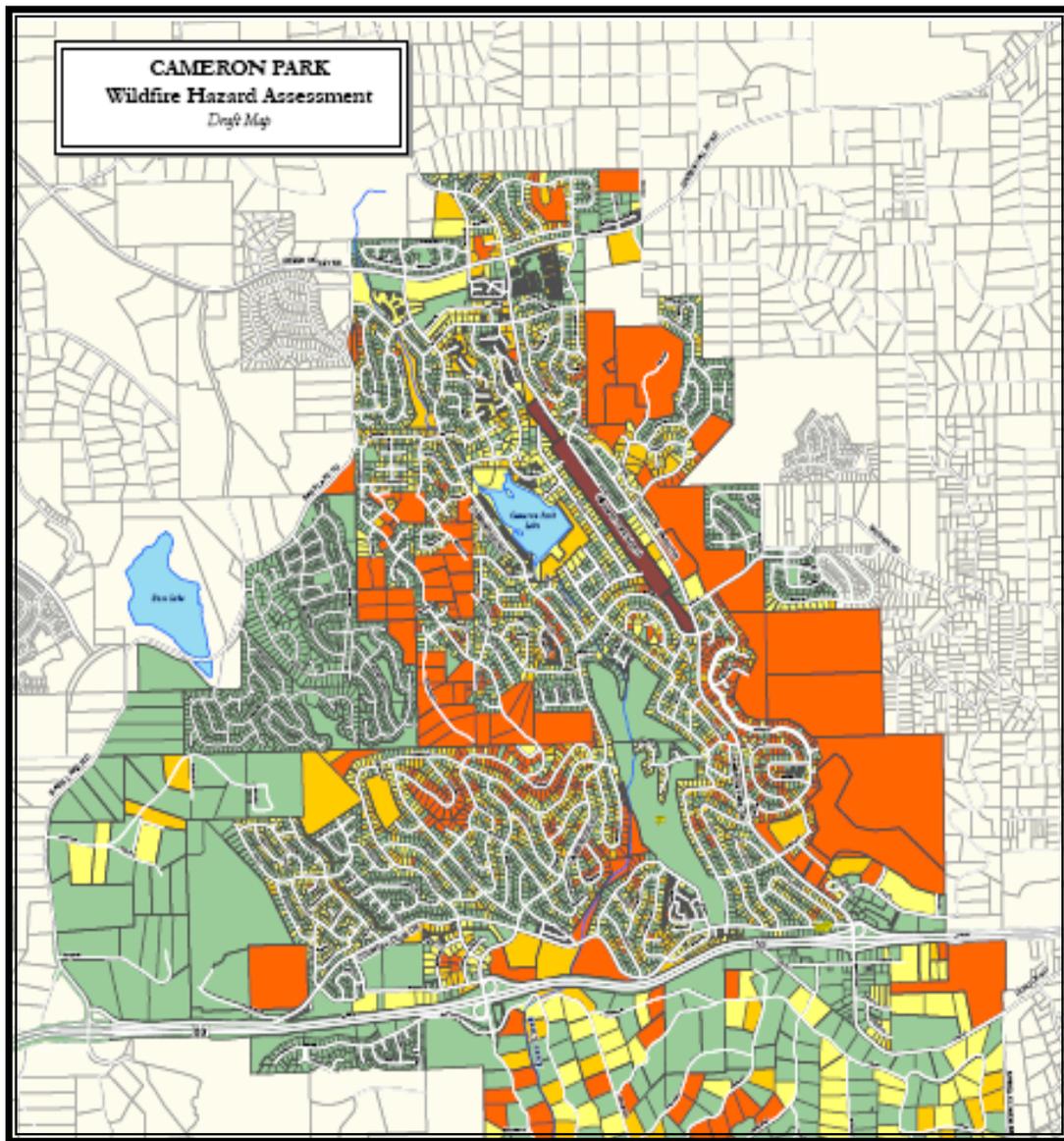
Knollwood Drive



Sudbury Road

Cameron Park Wild Fire Community Hazard and Risk Assessment

The Cameron Park Fire Safe Planning and Fuels Reduction Project depicts, in detail, the critical fire hazard and threat to Cameron Park. This tool allows Cameron Park to prioritize wildland urban interface mitigation projects. The complete geographic inventory of the community identified those areas in most need as “extreme”. Additionally, the Cameron Park Risk Assessment has identified others areas as high, moderate, or low. Attributes assessed to develop this map include: building materials, roof type, fuel type or fuel model, and lot slope and aspect.



Map Prepared January, 2006



Fire History

The community of Cameron Park is situated next to Highway 50 which is heavily commuted by local, state, and interstate travelers. The Highway 50 corridor is also the most densely populated area of El Dorado County. Wildfire history is much higher along the Highway 50 corridor than surrounding areas of El Dorado County in terms of numbers of fires started. Over the 40 year history of the community, numerous large vegetation fires have occurred in the immediate surrounding areas.

Given the fuels, topography, weather, development and fire history in the area, the community is vulnerable to a catastrophic wildfire. The California Department of Forestry and Fire Protection (CAL-FIRE) in cooperation with the Cameron Park Fire Department (CPFD) has implemented a comprehensive “Fire Safe” project for the community of Cameron Park to minimize the potential for costs and losses associated with a catastrophic wildfire.



View from Green Valley Road and Cameron Park Drive

Hickok Fire September 2002

The most recent large fire in the Cameron Park area occurred 3 miles north of the community in 2002. The Hickok Fire burned approximately 700 acres of vegetation and threatened dozens of homes in the community of Rescue before it was stopped by firefighters at Deer Valley Road.

Fortunately the Hickok fire occurred on a day when winds were light (less than 5 mph). Had this fire occurred on a day when winds were blowing from the northwest at 25 mph it most certainly would have burned into, and probably through, the community of Cameron Park.



View from Cameron Park Airport

Cameron Park Fire Safe Project

A common complaint received by the Cameron Park Fire Department from the public is about their concern for protection from a wildfire emergency. An analysis of emergency incidents in the local area supports the public perception that the greatest threat to the community may be from a destructive wildfire similar in nature to the fire that occurred recently in South Lake Tahoe, the Angora Fire, which started this past summer on June 24, 2007. The Angora Fire burned less than 5 square miles (31000 acres) and destroyed 254 homes and 75 commercial and other structures in one day.

The Cameron Park Fire Department in Cooperation with the California Department of Forestry implemented a project in the Community of Cameron Park with a long term goal of establishing a "Fire Safe" community. The enormous scope of the problem necessitated that it be approached by a coalition of public and private stakeholders that included: 1) Fire Department officials, 2) El Dorado County government and agency officials, 3) Community Services District officials, 4) utility company representatives, 4) environmental groups, 5) insurance industry representatives, 6) real estate industry representatives, 7) homeowners associations, 8) large land owners, and 9) general public.

The project is comprehensive enough to address the entire wildland-urban interface problem in the district from small strips of flammable vegetation along roadside easements, to large tracts of undeveloped brush covered lands. No timeframes were established for the completion of this project. Progress is dependent upon the cooperation and initiative of the stakeholders, and the success in securing project funding through grants or other sources. Three critical elements of the project are:

Project Elements

<u>Planning:</u>	Cameron Park Fire Safe Bureau Cameron Park Fire Safe Council Fire Safe Development Plans – PRC 4290 Community Wildfire Preparedness Plan Community Hazard and Risk Assessment
<u>Fuel Reduction:</u>	Residential Lot Clearing Requirements – PRC 4291 Vacant Lot Clearing Requirements – H&S 14875 - 14922 El Dorado County Chipper Program Green Waste Program Vegetation Management Program Curbside Landscaping
<u>Public Education:</u>	Volunteers in Prevention Public Displays Demonstration Lots Public Recognition Hazard Awareness

Planning Element Description

Cameron Park Fire Safe Bureau – The Cameron Park Fire Department has a Fire Safe Bureau to coordinate the districts' efforts towards minimizing costs and losses associated with wildfire emergencies. The Fire Safe Bureau is located at Cameron Park Fire Station 89. The Fire Safe Bureau works with the Cameron Park Fire Safe Council to implement the Cameron Park Fire Safe Project. The Fire Safe Bureau re-focuses the efforts and priorities of the fire department personnel and resources directly on the wildland-urban interface problem.

Cameron Park Fire Safe Council – A Fire Safe Council is established in the community. It is a partnership between the fire department and the community for addressing the local wildfire hazard. The Fire Safe Council is a coalition of public and private sector stakeholders including community leaders, residents, business persons, government agencies, the fire department, and other groups and associations committed to developing a "Fire Safe" community in Cameron Park. The Fire Safe Council meets every other month. One member of the Cameron Park Fire Safe Council represents the community at the El Dorado County Fire Safe Council. The active Fire Safe Council is one of the critical elements for this project's success.

Fire Safe Development Plans (PRC 4290) – A Fire Safe Plan has been prepared and submitted for project applications for new construction and development within the community. The Fire Safe Plan provides for emergency vehicle access and perimeter wildfire protection measures. Elements of the fire safe plan include standards for road and street networks, water supply standards, building construction, and fuel modification and defensible space. The Department's Fire Safe Bureau works closely with the County of El Dorado Building and Planning to accomplish fire safe projects.

Cameron Park Wildfire Preparedness Plan (CWPP) – A preplan for managing wildfire emergencies in and around the community has been developed. The preplan incorporates information developed in the Fire Safe Plan to improve chances for initial attack success in the event of a wildfire emergency. Fuel breaks, water supplies, evacuation routes, staging areas, resource needs, strategies and tactics, etc. are developed for a variety of wildfire scenarios. The pre-plan will be distributed to local firefighters for training and made available to the public for educational purposes.

Community Hazard and Risk Assessment – A hazard and risk assessment has been completed for the entire community. The hazard and risk assessment quantifies the threat to persons and property in the community from a wildfire emergency. Factors such as fuel, topography, land use and types of building construction were considered. The hazard

and risk assessment is a critical planning tool that directs the efforts of the Fire Safe Bureau.

Fuel Reduction Element Description

Residential Lot Clearing Requirements (PRC 4291) –Residents are required to establish defensible space around the structures on their lots, under the authority of Public Resource Code § 4291. PRC 4291 requires removal of flammable vegetation for a minimum of 30 feet, and up to 100 feet around structures. Fire department personnel and volunteers make initial inspections. Failure to comply may result in a citation.

Vacant Lot Clearing Requirements (H&S 14875 – 14922) – Based on the community hazard and risk assessment, vacant lots are required to remove flammable vegetation under the authority of the Fire District’s weed abatement ordinance. The weed abatement ordinance was established in 2010, by the Board of Directors, under the authority of Health and Safety Code § 14875. Fire Department personnel and volunteers make initial inspections. Failure to comply may result in the fire department contracting for the abatement work and a lien being filed on the property. Failure to comply may result in a citation.

Chipper Program – The Cameron Park Fire Department utilizes the El Dorado County Fire Safe Council’s chipper program to support the residential lot clearing efforts. The chipper program provides a cost effective alternative and incentive for property owners to cooperate with the District’s fuel reduction efforts. Chips can be scattered in place on the property owner’s lot, stored in a central location for redistribution, or used as a groundcover in road easements or other areas.

Fire Resistive Plants – Ornamental trees, shrubs, and groundcovers that are fire resistive and perform well in the local soil and weather conditions have been identified. Property owners are encouraged to replace native flammable vegetation with fire resistive ornamental plants.

Public Education Element Description

Volunteers in Prevention (VIP) – The district has established a Volunteers in Prevention program to assist with administration of the Cameron Park Fire Safe Project and public education. The VIP program is administered by CAL-FIRE. VIP’s are utilized for a variety of fire prevention activities including office support, inspections, and public education programs.

Demonstration Lots – “Demonstration Lots” have been established around the District featuring two types of fire safe landscaping. One type demonstrates how to thin and prune native vegetation (primarily oak

woodland) to reduce its fire danger potential. The other type includes fire resistive ornamental plants that can be used to replace or enhance native plant species.

Public Displays – Public education materials are constantly displayed at community events attended by the Fire Department and/or the Fire Safe Council.

Web Page – The District's web page is updated to provide a complete overview of the Cameron Park Fire Safe Project.

Hazard Awareness and Prevention – Public education materials have been developed to heighten the awareness of the community towards the dangers of a wildfire emergency and to educate the public on the efforts to reduce the hazard. Materials include maps and information of the fire history in the local area; history of catastrophic wildfires in the state; methods for fuel reduction and fire resistive landscaping; methods for creating defensible space around structures; methods for preventing the ignition of a wildland fire; and/or a mock newscast of a catastrophic wildfire in the community to present the reality of the danger.

Conclusion

The community of Cameron Park is in an area where high fire danger exists. This Community Fire Safe Project offered by the Cameron Park Fire Department, in cooperation with the California Department of Forestry and Fire Protection, addresses the public's concern for fire danger. It has been endorsed by the Cameron Park Fire Safe Council. It is a plan for the continued development of a "Fire Safe" community in Cameron Park. This document is subject to review and revision in the future.

Division 6 / Battalion 8
Division Chief Mary Huggins
Battalion Chief Chris Timberlake

LAKE TAHOE BASIN

The mission of CAL FIRE, the California Department of Forestry and Fire Protection, is to serve and safeguard the people and protect the property and resources of California. To meet this mission, the Lake Tahoe Basin is administered by two CAL FIRE units. The north shore vicinity, which includes Placer and Nevada Counties, is administered by the Nevada-Yuba-Placer Unit headquartered in Auburn and does not have any permanent staffing within the Lake Tahoe Basin. The El Dorado County area, located on the south and west shores of Lake Tahoe is administered by the Amador-El Dorado-Sacramento-Alpine Unit (AEU). The AEU staff is located in South Lake Tahoe and includes one Division Chief (Forester II) whom also serves as Agency Representative during emergencies, one Battalion Chief, one Forester I, one Forestry Assistant II, and three Forestry Aides. In addition, a CAL FIRE Type III engine was staffed during the fire seasons of 2008-2010 under a Governor's Executive Order as detailed further below.

Since the early 1980's a CAL FIRE professional forester had been assisting non-federal landowners in the Lake Tahoe Basin with forestry advice and management assistance. In 1990, our role expanded when CAL FIRE began providing professional forestry advice and services for California Tahoe Conservancy (CTC) properties through an interagency agreement, resulting the hiring of another permanent Registered Professional Forester and a Forestry Assistant. Today, CAL FIRE works closely with the CTC's Urban Land Management Program on hazard fuel reduction projects and the CTC Forest Habitat Enhancement Program on fuel reduction, forest health and wildlife habitat enhancement projects in the urban interface and general forest areas.

An influx of Proposition 40 monies in January 2005 for fuel reduction, coupled with the post-Angora Fire Emergency California-Nevada Tahoe Basin Fire Commission recommendations in May 2007 has expanded CAL FIRE's role even more in the Lake Tahoe Basin.

I. PRE-ANGORA FIRE ACCOMPLISHMENTS

Fire Prevention

CAL FIRE staff located in South Lake Tahoe provided local fire departments and the Tahoe Fire Safe Council with Public Resource Code (PRC) 4291 defensible space inspection and enforcement training routinely each year since 2007 before the Angora Fire erupted on June 24, 2007. In May 2007, Governor Schwarzenegger authorized CAL FIRE to hire seasonal Firefighters throughout the state to conduct PRC 4291 inspections. CAL FIRE personnel in the Tahoe Basin were thereby able to assist local fire departments in performing PRC 4291

inspections, performing over 500 PRC 4291 inspections between August and early late fall.

CAL FIRE staff also performed PRC 4290 review, as it does today, which includes pre-fire development review of all types, from single home to condominium complexes. Other duties include State Responsibility Area Fire Hazard Map review and Wildland Urban Building Standard review.

Fuels Reduction Efforts

In 2004, the legislature authorized a new CAL FIRE fuels reduction program of approximately 40 million dollars over 5 years from Proposition 40 funds. Approximately one million dollars per year have been brought into the Tahoe Basin for fuels reduction work. The fuels reduction projects resulted in improvement and protection of watersheds and water quality at risk throughout the Sierra Nevada. The Prop 40 monies were allocated within the Tahoe Basin in two ways. The first was through Community Assistance Grants with local fire agencies, state land management agencies, and the Nevada Fire Safe Council. The second method was through an interagency contract between the California Conservation Corp and CAL FIRE for fuels reduction work on California Tahoe Conservancy lands. Both Proposition 40 grant allocation accomplishments are detailed below.

Proposition 40 Grants Funding for Fuels Reduction

Since the first grant cycle held spring 2005 (Fiscal Year 04/05), various entities within the Lake Tahoe Basin have applied for and were awarded Proposition 40 grant monies to perform fuels reduction work, including chipper programs, in priority areas previously identified in the Lake Tahoe Basin Community Fire Plan.. These entities include Lake Valley Fire Protection District, Fallen Leaf Fire Community Services District, Meeks Bay Volunteer Fire Protection District, City of South Lake Tahoe Fire Department, North Tahoe Fire Protection District, Nevada Fire Safe Council, California Tahoe Conservancy, and California State Parks. In addition, CAL FIRE Proposition 40 fuel reduction monies funded a California Forest Improvement Program (CFIP) fuel reduction grant project located near Heavenly Ski Resort on private land.

CAL FIRE was granted an additional \$625,000 in Proposition 40 funds to the California Conservation Corp (CCC) at Lake Tahoe to perform fuels reduction projects on California Tahoe Conservancy lands. These projects resulted in the overall treatment of 340 acres beginning in September 2005 through December 2007, located throughout Tahoe Basin in California within the urban-wildland interface. CAL FIRE professional forestry staff has continually assisted the California Tahoe Conservancy in preparing and administering fuel reduction projects within the Tahoe Basin.

2004-2005 FUNDED PROPOSITION 40 COMMUNITY ASSISTANCE GRANTS

- Lake Valley Fire District Chipper Program (South Shore) \$45,180: Approximately 245 acres to be treated throughout the Lake Valley Fire District whereby homeowners bring material removed for defensible space purposes to the roadside chipper to be chipped by Lake Valley Fire crews.
- Lake Valley Fire District Christmas Valley 3 Fuel Break (South Shore) \$43,221: Approximately 25 acres to be treated by thinning to create a community fuel break near Meyers.
- Fallen Leaf Lodge Homeowners Fuels Reduction (South Shore) \$42,000: Approximately 30 acres to be treated by thinning in order to create a community fuel break on the west Shore of Fallen Leaf Lake adjacent to the lakeside community.

2005-2006 PROPOSITION 40 COMMUNITY ASSISTANCE GRANTS

- Fallen Leaf Lodge Homeowners Fuels Reduction, Project 4, Phase 1 \$47,500: Approximately 14 acres to be treated by thinning in order to create a community fuel break on the west shore of Fallen Leaf Lake adjacent to the lakeside community.
- Nevada-Tahoe Fire Safe Council, Rubicon Bay Fuels Reduction Project \$79,600: Approximately 20 acres to be treated by hand thinning in order to create a community fuel break and also to protect a major native fishery within the project area.
- California State Parks Grizzly Mountain Defense Zone \$33,000: Approximately 8 acres to be hand thinned and both chipped and hand piled for burning within Washoe State Park immediately adjacent to a major subdivision area.

2006-2007 FUNDED PROPOSITION 40 COMMUNITY ASSISTANCE GRANTS

- Lake Valley Fire Protection District Community Chipping and Defensible Space Program \$50,000: Approximately 245 acres to be treated throughout the Lake Valley Fire whereby homeowners bring material removed for defensible space purposes to the roadside chipper to be chipped by Lake Valley Fire crews.
- Fallen Leaf Lodge Homeowners Fuels Reduction \$79,250: Approximately 25 acres to be treated by thinning in order to create a community fuel break on the west Shore of Fallen Leaf Lake adjacent to the lakeside community, as well as fuels reduction concurrently being performed by on USFS and California Tahoe Conservancy lands. Work is in progress.
- City of South Lake Tahoe Springwood Fuels Reduction Project (Springwood): \$50,000. Approximately 30 acres to be hand thinned and both chipped and hand piled for burning within the City of South Lake Tahoe on city lands immediately adjacent to a major subdivision. Project is in planning stage.
- County of El Dorado Angora Fire Salvage: \$375,000. Approximately 200 parcels affected by the Angora Fire shall be treated for burned vegetation removal. The County ended up only using \$50,000 for erosion control, and turned back the remaining allocation.

2007-2008 FUNDED PROPOSITION 40 COMMUNITY ASSISTANCE GRANTS

- Lake Valley Fire Protection District Community Chipping and Defensible Space Program \$50,000: Approximately 245 acres to be treated throughout the Lake Valley Fire whereby homeowners bring material removed for defensible space purposes to the roadside chipper to be chipped by Lake Valley Fire crews.
- Fallen Leaf Lodge Homeowners Fuels Reduction \$111,250: Approximately 80 acres to be treated by thinning in order to create a community fuel break on the west Shore of Fallen Leaf Lake adjacent to the lakeside community, as well as fuels reduction concurrently being performed by on USFS and California Tahoe Conservancy lands.
- Meeks Bay Fire Protection District Chipper Program \$50,000 whereby homeowners bring material removed for defensible space purposes to the roadside chipper to be chipped by Meeks Bay Fire crews.

Forest Practice

Forest health is paramount to maintaining the water quality of Lake Tahoe. Efforts to prevent loss by catastrophic wildfire and other pathogens often precipitate landowners' decision to plan and prepare harvesting documents in the Tahoe Basin. Since the early 1980's, CAL FIRE Registered Professional Foresters have been working closely with landowners and agencies by ensuring field recommendations regarding sound forestry practices are thoroughly discussed and recommendations developed on non-federal lands. CAL FIRE foresters have also assisted in regulatory changes and recommendations that assist to help non-federal land owners in managing, enhancing and maintaining their timberland.

since the mid-1990's, CAL FIRE has assisted Tahoe Basin landowners with fuels reduction efforts under the interagency ReGreen Program, which assisted landowners in removal of dead trees caused by the drought.

Fire Protection

CAL FIRE is responsible for protecting 31 million acres of State Responsibility Area (SRA) acres in California. The SRA lands are those timber and brush covered non-federal lands not located within a city. There are approximately 33,000 acres of SRA lands in the Lake Tahoe Basin and include the communities of Tahoe City, Tahoma, Carnelian Bay, Tahoe Vista, Kings Beach, Tahoe Pines, Homewood, Dollar Point, Meeks Bay, Rubicon Bay, Meyers, Fallen Leaf Lake, and South Lake Tahoe outside of city limits.

Through the statewide Cooperative Fire Management Agreement (CFMA), the USFS has been given the authority to act on CAL FIRE's behalf as the wildland fire response entity for State Responsibility Area (SRA) lands within the Lake Tahoe Basin. Locally driven, specific terms of this agreement are addressed in an Annual Operating Agreement between the USFS Lake Tahoe Basin Management Unit and the CAL FIRE Amador-EI Dorado Unit. This agreement includes, but is not limited to, information such as tactical frequencies, wildland fire response notification procedures, apparatus and their staffing levels,

facilities, prescribed burning procedures, and inspection and enforcement of PRC 4291. Therefore, due to this agreement, CAL FIRE has not had engine stations within Lake Tahoe Basin where the USFS has SRA lands within its Direct Protection Area (DPA) until fire season 2008. Staffing level changes for fire season 2008 through 2010 changed due to the Governor's Executive Order of May 27, 2008 which authorized CAL FIRE to establish two one-engine stations, one station on the south shore and one station on the north shore for three consecutive fire seasons, after which the success of which will be studied by CAL FIRE to determine if these stations will continue to remain staffed.

Fire History, Fuel Hazards, and Ignition Information

In 2000, the Lake Tahoe Basin Watershed Assessment for the Lake Tahoe Community Wildfire Protection Plan quantified and assessed the wildfire threat to watersheds in the Tahoe Basin. Fuels analysis, ignition history, and fire behavior modeling was used to predict fire occurrence in the basin. Field surveys were conducted to collect community and project specific information. Detailed fire behavior analysis, structural assessment, and community design assessments were conducted to rate communities. Mitigation projects were developed around hazardous community areas and were prioritized by reviewing field based hazard information, data from watershed assessments, input from the public, and input from the local fire chief. Results from the field assessment indicated that a majority of homes and structures in the Tahoe Basin lacked non-flammable building materials, fire safe construction techniques, and Public Resource Code 4291 then –required 30-foot defensible space clearance. Fire behavior analysts conducted studies on sample points located within the communities and found fire would reach the canopy of the forest eighty percent of the time. Wildfire hazards to the communities were significant due to high fuel loadings within and around communities.

Historic Fire Regime and Fuel Hazards

Prior to European settlement, fire in the Basin had return intervals varying from 5 years to 128 years throughout the Basin. However, at lower elevations where most of the Native Americans of the Washoe tribe camped and where today's communities are located, the fire return intervals were shortest. These lower elevation areas had fire return intervals averaging 5 years to 18 years around the edge of the Lake and then south to approximately the town of Meyers. Immediately above this elevation, fire return intervals averaged 9 years to 32 years. Based on fire return data, it is estimated that 689 to 2, 964 acres burned annually in the western portion of the Basin (Murray and Knopp 2000). During this pre-European time, lower elevation montane forests were characterized by large, widely spaced trees with little understory. Because frequent fires reduced surface and ladder fuels, fire intensities were low and there was little mortality of mature trees.

As Europeans settled in the Basin, the fire regime and fuels hazards changed. The frequent fires set by the Washoe were eliminated as the Native Americans were pushed out of the Basin. Between 1875 and 1895, large-scale timber harvesting resulted in clearcutting most of the old growth forests on the west shore. Large-scale harvesting continued after this but was more localized. By 1900 the forests in the Basin were now comprised of individual stands of smaller size classes (1 inch DBH to 24 inch DBH and also old growth in areas difficult to access at the time. The smaller size classes of these trees would have supported more intensive fires than the old growth stands. The high hazard fuels resulted in the largest fire ever recorded in the Basin in 1918 (1,013 acres) and the largest number of acres burned in the Basin during the decade between 1916 and 1925 (2,593 acres) (Murray and Knopp 2000).

Current Fire Regime and Fuel Hazards

Several factors have combined to significantly change the fire regime and fuel hazards in the Basin. Since the 1970's, public sentiment and management strategies increasingly emphasized the protection and preservation of natural resources. Without sources of disturbance such as fires or harvesting, forest vegetation continued to grow. As a result, there were a large number of all size classes of trees in forest stands that create a ladder of flammable vegetation from the ground to the overstory canopy. In addition, since 1975, three periods of drought increased mortality in forest and riparian vegetation. As a result, fuel hazards may be the highest they have been in over 100 years.

II. ANGORA FIRE

On June 24, 2007, the Angora Fire started in the North Upper Truckee area in South Lake Tahoe, California. The fire burned out of control, threatening hundreds of residences and commercial structures, and resulted in thousands of evacuations. A total of 3,100 acres were burned and 254 homes were destroyed by this fire. El Dorado County proclaimed a local emergency June 24, 2007, and subsequently requested state and federal assistance by a separate proclamation issued the next day. In response to El Dorado County's request, California Governor Arnold Schwarzenegger proclaimed a State of Emergency for this event on June 25, 2007. The Angora Fire was fully contained on July 2, 2007. The Angora Fire has underscored the need for a comprehensive review of fire prevention and fuels management practices in the Lake Tahoe Basin, and on July 5, 2007, Nevada Governor Jim Gibbons publicly invited California Governor Arnold Schwarzenegger to join him in establishing a joint fire commission to review fuels management of forests in the Tahoe Basin as well as the policies and procedures of the various agencies that govern fuels management within the Basin. The States of California and Nevada are committed to reducing the threat of wildfires while preserving the unique and treasured environment of the Tahoe region. California and Nevada hereby agreed to create the California-Nevada Tahoe Basin Fire Commission.

The Commission was formed in August 2007 and met for eight months. The first two meetings were dedicated to listening to fire responders, agency directors and staff, technical experts, and, most of all, the public and residents of the Lake Tahoe Basin, as they explained their problems, concerns, and hopes in the wake of the disaster. The Commission spent a little time on analyzing the Angora Fire itself, and much more on the efforts that had gone into preparing for the inevitable wildfires, wherever and whenever they might occur in the Basin. At those first meetings, the Commission also considered at length how the elements of environmental protection interplay with public safety. Three primary areas of discussion emerged, and committees were created to further explore the multitude of topics in each of these areas: Wildland Fuels Management, Community Fire Safety, and Legislation and Funding Policies.

The commissioners all agreed that a universal goal was to have the most open, participative, and collaborative process possible – the Commission felt strongly that any member of the public should have a chance to have input. Toward that end the Commission developed an approach that invited any individual or organization to submit a ‘Finding and Recommendations’ suggestion that would be considered by one of the three committees, and then brought to the Commission for action. Altogether, 120 proposed findings and nearly 200 recommendations were submitted by a variety of experts, stakeholders, organizations, and individuals, including Commissioners themselves. They were all reviewed and analyzed, and many were incorporated into the Commission’s report.

The Commission spent much of its time listening to the Lake Tahoe community at its meetings. The Commissioners did not all agree on every proposed solution, but consensus emerged on most of the pressing fire safety and environmental issues impacting the Tahoe Basin. All agreed that Lake Tahoe continues to be at risk from catastrophic wildfire and everyone recognizes that a large-scale, destructive forest fire is, in itself, a significant threat to the clarity of Lake Tahoe and the Basin’s environment.

Catastrophic fire causes deleterious impacts to the surrounding forests, the crystal blue clarity of the Lake, the economic livelihood of the Basin, and the people that live or visit there. Recommendations were submitted by a variety of experts, stakeholders, organizations, and individuals, including Commissioners themselves. They were all reviewed and analyzed, and many were incorporated into the Commission’s report.

Over the course of eight months’ deliberations, the California-Nevada Tahoe Basin Fire Commission heard from many Basin residents, fire professionals, land managers, environmental regulators, scientists, and others. By February 2008, more than 50 individuals and organizations had submitted 120 proposed findings (“F”) and even more associated recommendations (“R”) to the Commission. About a third of these were developed by members of the Commission, while

another third were developed by implementing and regulatory agencies at all levels of government, often working through interagency working groups. The rest were developed by interested members of the public including representatives of the conservation community, homeowners, and forestry-interest groups. Some of the proposed findings and recommendations were adopted as submitted or with modifications requested by Commissioners. More often, they were edited to combine similar ideas, eliminate redundancies, or reconcile conflicting recommendations. Ultimately, 90 recommendations were formulated by the Commission to be forwarded to the Governors of California and Nevada.

The Commission's findings and recommendations are presented in six categories that address short- and long term needs, policy changes, education, funding, governmental structures, and environmental practices related to Lake Tahoe's vulnerability to wildfire. The report recommends some change from past practices, and change can be challenging for some. But the Commission's challenge from the Governors was to take a treasured jewel, two states, a diverse community, strongly held beliefs, the work of many regulatory agencies, and the input of a concerned public to create a set of recommendations to reduce the risk of wildfire to Lake Tahoe.

The Commissioners unanimously recommended that the Governors issue Emergency Declarations regarding the extreme threat that catastrophic fire poses to the Basin, its residents, and the unique natural resource that is Lake Tahoe (R 10, 12). The Commission's recommendations are organized into six categories (below) which together constitute a plan for reducing the Basin's vulnerability to catastrophic wildfire and the impacts such fires would have on the Lake's fragile environment.

CATEGORY 1: Environmental Protection

The difference between the threat of catastrophic fire to the Lake Tahoe Basin and the threat of catastrophic fire to other areas of California and Nevada is the presence of Lake Tahoe itself. This unique national treasure is one of the few areas in America that warranted creation by two neighboring states and Congress of a planning authority to oversee its protection. For over thirty years, environmental matters within the Lake Tahoe Basin have been determined by the Tahoe Regional Planning Agency and a myriad of federal and state agencies. This unique system of regulatory oversight has resulted in the imposition of multiple layers of requirements that are not found in other areas of the two States. The Commission worked diligently to reconcile these important protections of the Basin's unique natural resources with commonly accepted fire prevention and suppression practices in order to find a balance that reflected the values of life, property, and environmental protection. To this end, the Commission's recommendations address the need for:

- All agencies to make restoration of the Basin's forests to a more natural and fire-resistant condition as a common and primary goal (R 2).

- Easier implementation of fuels reduction project streamlining permitting procedures and monitoring requirements (R 17, 72).
- TRPA and the LRWQCB to review their procedures and requirements and, where possible without jeopardizing reasonable environmental practices, to modify their requirements to facilitate needed fuels reduction programs (R 16, 17, 18, 19, 35, 52, 53, 69, 73).

Executive Summary

CATEGORY 2: Issues of Governance

The Commission adopted a number of recommendations aimed at making the TRPA more responsive to concerns regarding the threat posed by catastrophic fire to residents of the Basin

as well as to the Lake. Also included are recommendations addressing other agencies' practices and activities relating to the need to facilitate fuels removal projects in the Lake Tahoe Basin. Recommendations are forwarded regarding the need to:

- Bring fire prevention perspectives to the TRPA (F 9; R 20) and have TRPA review its present requirements in light of their impacts on the risk of catastrophic fire (R 18, 19).
- Impose enhanced reporting obligations of the TRPA to the States of California and Nevada regarding such matters (R 21, 22, 23).
- Develop a Memoranda of Understanding (MOU) between TRPA and the LRWQCB to facilitate procedures relating to fuels reduction projects (F 11, 12; R 26).
- Make environmental standards relating to fuel removal projects uniform throughout the Basin (R17).
- Support the Tahoe Basin Fire Chief's "Nine Point Letter" to TRPA (F 8) and the agreements reached to resolve those concerns (R 19).
- Extend the Commission authority so that it may monitor implementation of the recommendations that are accepted by the Governors (F 6; R 14, 22).

Executive Summary

CATEGORY 3: Community and Homeowner Fire Protection

A number of the Commission's recommendations recognize that fire prevention is also a duty of every property owner and must be aggressively addressed by private property owners within the Basin. Recommendations are therefore presented to:

- Clarify regulatory requirements relating the removal of pine needles from areas adjacent to residences (R 37)
- Require the implementation of defensible space around all structures (R 37,44)
- Address the need to retrofit all existing structures in the Basin with ignition resistant materials (R 45, 46)

- Promote educational programs regarding defensible space and fire safe practices (R 38, 39, 41)
- Implement the “Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy - 10 Year Plan” that builds upon community wildfire prevention plans affecting every community within the Basin (R15, 54, 55)

CATEGORY 4: Forest and Fuels Management

The key to addressing the buildup of fuels within the forests of the Basin is to remove the excess fuels as quickly as possible and to then maintain the forests according to sound forest management practices. The Commission developed a number of recommendations addressing this over-arching problem including:

- Implementation of the “Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy - 10 Year Plan” with regard to the Basin’s forests (R 15)
- The need to facilitate the use of hand-thinning and low-impact equipment and allow pile burning in sensitive stream environment zones and on steep slopes (R 17, 68, 70)
- The need to allow use of readily available mechanized equipment in such areas in order to accomplish fuels reduction projects (F 32; R 17, 68)
- The need to facilitate forest thinning practices and biomass processing as means to reduce the intensity of future wildfires and resulting pollution to air and water resources (F 21, R 56)
- The need to quickly clean up and reforest areas burned by the Angora fire (F 19; R 50) Executive Summary

CATEGORY 5: Fire Suppression

With respect to all matters within the Tahoe Basin, the Commission determined that protection of life, property, and the environment be served in that order of priority

(R 78, 89). In that regard, the Commission has recommended a number of actions to:

- Enhance fire suppression resources within the Basin including revision of the “Balance of Acres” agreement between the State of California and federal authorities to assure that the Basin receives 24/7 fire protection services at a level equal to other state responsibility areas in California (F 37; R10, 75)
- Re-introduce CAL FIRE’s presence within the Basin (R 76)
- Equip the C-130’s of the Nevada Air National Guard with modular airborne fire fighting systems (R 78)
- Make fuels reduction projects in areas within and adjacent to the Basin’s communities the first priority by all agencies (R 69, 89)

CATEGORY 6: Funding

Present funding levels for fire prevention, planning, and suppression activities in the Basin were found by the Commission to be inadequate and, in some cases, derived from sources that are not consistently reliable. The Commission also

recognized the need for private property owners to participate in the costs of avoiding catastrophic wildfire. Consequently, the Commission has attempted to quantify immediate funding needs as well as funding needed on a long term basis needed from all stakeholders. To assist in identifying these needs and serve as a foundation for future discussions, the Commission adopted recommendations:

- Addressing the need to stabilize revenues from existing funding sources and to develop additional funding sources necessary for the implementation of the Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy 10 Year Plan (R 84, 87, 88).
 - Encouraging the Governors to join with the States' Congressional delegations to develop permanent federal sources of funding for emergency fuels reduction programs and forest restoration efforts in the Lake Tahoe Basin (R 82, 83).
- Additional information regarding estimates of specific funding needs is set forth in Appendix E, "Costs Summary." For the complete language of any of the Commission's recommendations, please see the Recommendations section of this Emergency Report. For information regarding the background and rationale for the recommendations, please see the Findings section.

III. POST-ANGORA FIRE ACCOMPLISHMENTS

After the Angora Fire, cleanup up the destroyed homes sites and tree removal was the first priority to getting affected citizens back into their neighborhood to prepare for rebuilding. CAL FIRE, in cooperation with CAL EPA and El Dorado County, were very involved in the hazardous vegetation removal adjacent to homes, home sites, and roadways. CAL FIRE also awarded \$375,000 of Proposition 40 grant monies to the County of El Dorado to assist with the cost of the cleanup effort. Approximately 200 parcels affected by the Angora Fire were treated for burned vegetation removal. The entire process took six weeks.

After the Angora Fire, CAL FIRE participated heavily in the aforementioned Emergency California-Nevada Tahoe Basin Fire Commission hearings. After the commission report was accepted, leaders of resource management, fire, and regulatory agencies in California and Nevada within the Tahoe Basin formed the Multiagency Coordination Group, or MAC. The MAC then formed the Tahoe Fire and Fuels Team (TFFT), which implements fuel reduction projects and answers to the MAC regarding all fuel reduction and fire prevention projects and related issues and media outreach in the Lake Tahoe Basin. CAL FIRE is an Agency Representative on the MAC and also has two technical specialists (professional forester and Battalion Chief) on the Tahoe Fire and Fuels Team.

Post-Angora Fire work recently completed in February 2009 were lengthy hearings and correspondence by CAL FIRE and other Tahoe Basin fire and resource management agencies, in response to the Lahontan Regional Water Quality Control Board's Memorandum of Understanding with the Tahoe Regional Planning Agency regarding fuel reduction permit streamlining. Additional post-Angora Fire work recently completed in May 2009 include lengthy hearings and correspondence by CAL FIRE in response to the Lahontan Regional Water Quality Control Board's revised Timber Waiver for fuel reduction work. Both the

Lahontan-Tahoe Regional Planning Agency MOU and the Lahontan Timber Waiver were highly controversial. Each document was also part of the Emergency California-Nevada Tahoe Basin Fire Commission Report regarding the need for permit streamlining and reduction of onerous regulatory requirements to fuel reduction.

Fire Suppression and Emergency Response

The AEU CAL FIRE engine stationed in the Tahoe Basin was dispatched to a total of 136 incidents in 2008 and to a total of 122 incidents in 2009. These combined total of 258 emergencies include vegetation fires, structure fires, vehicle fires, downed aircraft fire, debris fires, medical aids, traffic collisions, water rescue, missing hiker search and rescue, assisting with firework and other public events, hazardous materials emergencies, and smoke checks.

With respect to all matters within the Tahoe Basin, the Commission determined that protection of life, property, and the environment be served in that order of priority (Recommendations 78 and 89), In that regard, the Commission recommended a number of actions to:

- Enhance fire suppression resources within the Basin including revision of the “Balance of Acres” agreement between the State of California and federal authorities to assure that the Basin receives 24/7 fire protection services at a level equal to other state responsibility areas in California (Finding 37; Recommendations 10 and 75)
- Re-introduce CAL FIRE’s presence within the Basin (Recommendation 76)
- Make fuels reduction projects in areas within and adjacent to the Basin’s communities the first priority by all agencies (Recommendations 69 and 89)

The Governor’s Proclamation (Recommendation 75) mandated that CAL FIRE “secure and deploy additional resources...to protect the safety of persons and property from wildfires within the counties of Placer and El Dorado during the periods of elevated fire risk.”

To meet the Commission’s recommendation, CAL FIRE’s Director authorized one CAL FIRE engine be stationed at the south end of Lake Tahoe and one CAL FIRE engine to be stationed on the north shore. Both of these engines were staffed with a Fire Captain and three firefighters. In addition, one extra firefighter for each engine company was provided through a separate Governor’s Executive Order for the purpose of performing Public Resource Code (PRC) 4291 defensible space inspections. These two engines were brought back for 2009 fire season.

The presence of two CAL FIRE engine companies plus two additional PRC 4291 inspectors authorized by the Governor’s Proclamation and Executive Order allowed CAL FIRE to meet many of the Fire Commission’s recommendations. Without the Proclamation and Executive Orders, CAL FIRE could not fiscally supplement suppression resources in the Lake Tahoe Basin, nor perform fuel reduction and PRC 4291 defensible space inspections.

All wildland fires within the basin in 2008 were kept to less than 2 acres in size for fire season 2008. All wildland fires within the basin were kept to less than 1/3 acre in size for fire season 2009. During the five-week Northern California lightning fire siege of June and July 2008, northern California experienced significant drawdown of all Federal, State, and Local wildland firefighting resources. Within the Tahoe Basin, federal and local government fire resources were also significantly reduced. The two CAL FIRE engines maintained continuous station coverage within the Tahoe Basin throughout that five week lightning period, providing a significant increase in local firefighting capabilities during the drawdown. In addition to wildland and structure fire responses, CAL FIRE also provided substantial “all-risk” assistance to local government fire departments including but not limited to mutual aid on medical aids, traffic collisions, search and rescue, and hazardous materials incidents.

Specific terms of the Cooperative Fire Management Agreement are addressed in an Annual Operating Agreement for each area of the state. Upon recommendation of the Commission, the Lake Tahoe Basin is now covered by an Annual Operating Plan that includes CAL FIRE, Carson BLM, Humboldt Toiyabe, Tahoe, and El Dorado National Forests, and NDF. The agreement addresses, but is not limited to, information such as tactical frequencies, closest resource, wildland fire response notification procedures, fire apparatus and their staffing levels, facilities, prescribed burning procedures, and inspection and enforcement of Public Resource Code 4291 (defensible space). This new plan is more streamlined and consistent the prior individual operating plans

Fire Prevention

The AEU CAL FIRE engine companies assigned to the Tahoe Basin as a result of the Governor’s Proclamation conducted **947 defensible space inspections** from June to November 2008 and **870 defensible space inspections** from May to November 2009. The emphasis during 2008, the first year of inspections, was placed on public education of defensible space requirements with the goal of enforcing those requirements beginning in 2009. The AEU Tahoe staff has twelve pending PRC 4291 enforcement cases as of the end of November 2009. The NEU prevention staff thirty-four PRC 4291 enforcement cases in October 2009, of which twenty-seven were heard in court. With a shift from education to enforcement in 2009 and 2010, and relatively few Public Officers employed by Local Government fire districts, continued CAL FIRE presence in the Basin will be necessary to ensure that California’s Lake Tahoe homeowners comply with the regulations of PRC 4291.

A number of the Commission’s recommendations recognize that fire prevention is also a duty of every property owner and must be aggressively addressed by private property owners within the Basin. Recommendations were therefore presented to:

- Clarify regulatory requirements relating the removal of pine needles from areas adjacent to residences (R 37)

- Require the implementation of defensible space around all structures (R 37,44)
- Promote educational programs regarding defensible space and fire safe practices (Recommendations 38, 39, 41)

The Emergency California-Nevada Tahoe Basin Fire Commission Report clearly identified the need for increased defensible space property inspections in the Tahoe Basin and recommended vigorous enforcement of Public Resources Code 4291 in California. Local Government fire districts have long sought CAL FIRE's participation in the administration of defensible space regulations on State Responsibility Area (non-federal lands) within the Tahoe Basin.

Fuel Reduction and Vegetation Management Program

CAL FIRE personnel performed prescribed burning and pile burning projects with state and local government agencies. In 2008 and 2009, the two Basin CAL FIRE engines assisted California State Parks at Sugar Pine Point and Bliss State Parks with prescribed underburning and pile burning, assisted Lake Valley Fire Protection District with pile burning on California Tahoe Conservancy lands, constructed and burned approximately 50 hand piles as part of the Carnelian Canyon Vegetation Management Plan on California Tahoe Conservancy land, and in coordination with North Tahoe Fire Protection District burned approximately 300 hand piles as part of the Chinquapin Vegetation Management Plan. In 2009 the two Basin CAL FIRE engines also assisted the USFS with pile burning within the Meeks Bat Fire Protection District

Ignition Risk

The Lake Tahoe Basin has one of the highest ignition rates in the Sierra Nevada. Data from the USFS Lake Tahoe Basin Management Unit (LTBMU) from 1973-1996 were used to describe ignition risks. In the planning area, the highest occurrence of ignitions (number of ignitions per 1,000 acres) occurs at Brockway, from Kings beach to Tahoe vista, Dollar Point, Camp Richardson, and around the City of South Lake Tahoe. The lowest occurrence of ignitions occurred at Homewood, Meeks Bay and D.L. Bliss State Park.

Ignition Data -2007 through 2009

Below are charts from the United States Forest Service Lake Tahoe Basin Management Unit for all fires, including State Responsibility Area fires (highlighted) in 2007, 2008, and 2009. Except for the 2007 Angora and Washoe Fires, all fires are size class A, stopped at 0.3 acres or less.

Date	Incident Name	Class	Acres	State	Land Status	Stat Cause
24-May-07	Keller	A	0.10	CA	1	1
31-May-07	Kingsbury	B	0.50	NV	1	9
31-May-07	267	A	0.25	CA	1	9
1-Jun-07	Zephyr	A	0.25	NV	1	1
2-Jun-07	Kiva	A	0.25	CA	1	9
4-Jun-07	Bay	A	0.25	CA	2	5
5-Jun-07	Fiber	A	0.10	CA	1	4
14-Jun-07	Santa Fe	A	0.10	CA	1	4
16-Jun-07	Beaver	A	0.10	CA	1	4
18-Jun-07	Bear	A	0.10	CA	1	9
23-Jun-07	Rubicon	A	0.10	CA	1	4
23-Jun-07	College	A	0.10	CA	1	3
24-Jun-07	Angora	F	3100.00	CA	1	4
26-Jun-07	Campsite 1	A	0.10	CA	1	4
27-Jun-07	Kingswood	A	0.25	CA	2	4
30-Jun-07	Skunk	A	0.10	NV	1	4
30-Jun-07	Heavenly	A	0.25	CA	1	9
5-Jul-07	Edgewater	A	0.10	CA	2	4
6-Jul-07	Bunker	A	0.10	CA	2	9
11-Jul-07	Lost	A	0.10	CA	1	1
15-Jul-07	Triangle	A	0.10	CA	1	1
18-Jul-07	Meeks Bay	A	0.10	CA	1	9
22-Jul-07	Boat Camp	A	0.10	CA	2	4
30-Jul-07	Montreal	A	0.25	CA	1	3
31-Jul-07	Forest	A	0.10	NV	1	4
5-Aug-07	Barker	A	0.10	CA	1	4
5-Aug-07	Lookout	A	0.10	CA	1	4
5-Aug-07	Airport	A	0.10	CA	2	9
9-Aug-07	Eagle	A	0.10	CA	2	4
10-Aug-07	Lake	A	0.10	CA	1	9
11-Aug-07	Beaver 2	A	0.10	CA	1	4
12-Aug-07	Blackwood	A	0.10	CA	1	4
12-Aug-07	Sugar	A	0.10	CA	2	4

15-Aug-07	Granite	A	0.10	CA	1	4
17-Aug-07	West	A	0.10	CA	2	9
17-Aug-07	Oneidas	B	0.25	CA	1	9
18-Aug-07	Player	A	0.10	CA	1	7
18-Aug-07	Washoe	C	19.50	CA	1	9
26-Aug-07	Meiss	B	0.25	CA	1	1
2-Sep-07	Echo	A	0.10	CA	1	4
2-Sep-07	Mule Deer	A	0.10	CA	2	9
2-Sep-07	Bear 2	A	0.10	CA	1	9
5-Sep-07	Velma	A	0.10	CA	1	1
5-Sep-07	Suzy	A	0.10	CA	1	4
7-Sep-07	Saddle	A	0.10	CA	2	9
8-Sep-07	Beaver 3	A	0.10	CA	1	4
12-Sep-07	Tamarack	A	0.10	CA	1	4
13-Sep-07	Gilmore	A	0.10	CA	1	4
14-Sep-07	Kiva 2	A	0.10	CA	1	9
14-Sep-07	Skyline	A	0.10	CA	1	9
25-Sep-07	Celio	A	0.10	CA	2	4
9-Oct-07	Ward	A	0.10	CA	1	4
13-Oct-07	Sweetwater	A	0.10	CA	2	5
29-Oct-07	Beacon	A	0.10	CA	1	1
30-Oct-07	Barker 2	A	0.10	CA	1	1
2-Nov-07	Blackwood 2	A	0.10	CA	1	1
7-Nov-07	Fallen	A	0.10	CA	1	4

Total Acres

3126.75

2008 TMU USFS IGNITION DATA

TMU Fire No.	Incident No.	Date	Incident Name	Class	Acres	Land Status	Stat Cause
1	7594	25-Apr-08	Pope	A	0.10	1	4
2	7651	25-Apr-08	Bristle	A	0.10	1	4
3	8554	9-May-08	Winnemucca	A	0.10	2	7
4	9438	22-May-08	Meadow	A	0.10	1	7
5	10824	9-Jun-08	Stump	A	0.10	2	5
6	10896	10-Jun-08	Lake	A	0.10	1	9
7	10989	11-Jun-08	Cave	A	0.10	2	9
8	11373	16-Jun-08	Silver	A	0.10	1	2
9	12514	2-Jul-08	Staging	A	0.10	1	4
10	12697	4-Jul-08	Log	A	0.10	1	4
11	13059	4-Jul-08	Bank	A	0.10	2	4
12	13157	9-Jul-08	High	A	0.10	1	7
13	13469	14-Jul-08	Powerline	A	0.10	1	4
14	14231	24-Jul-08	Donner	A	0.10	2	9
15	14336	25-Jul-08	Lakewood	A	0.10	2	9
16	14641	29-Jul-08	Grass	B	0.30	1	4
17	14688	30-Jul-08	Cheshire	A	0.10	2	9
18	14772	31-Jul-08	Celio	A	0.10	2	9
19	17880	1-Aug-08	Fallen	A	0.10	2	9
20	14930	2-Aug-08	Beaver	A	0.10	1	4
21	15024	3-Aug-08	Gilmore	A	0.10	1	4
22	15469	9-Aug-08	Beaver 2	A	0.10	1	4
23	15563	10-Aug-08	Tumbleweed	A	0.10	1	8
24	15978	15-Aug-08	Chimney	A	0.10	1	9
25	16059	16-Aug-08	National	A	0.10	2	9
26	16523	16-Aug-08	Hell	A	0.10	1	4
27	16547	23-Aug-08	Luther	A	0.10	1	4
28	16618	24-Aug-08	Bliss	A	0.10	2	9
29	16636	24-Aug-08	Eagle	A	0.10	2	4
30	16983	29-Aug-08	Cathedral	A	0.10	1	4
31	17154	31-Aug-08	Stanford	A	0.10	1	9
32	17281	1-Sep-08	Old	A	0.10	2	9

33	17324	2-Sep-08	Fairview	A	0.10	1	4
34	17416	3-Sep-08	Lee	A	0.10	2	9
35	17790	9-Sep-08	64	A	0.10	1	9
36	17870	10-Sep-08	Park	A	0.10	2	9
37	18003	8-Aug-08	Crags	A	0.10	1	2
38	18113	13-Sep-08	Sugar	A	0.10	2	4
39	19204	29-Sep-08	Zimba	A	0.10	2	9
40	20070	12-Oct-08	Chapel	A	0.10	2	9
41	20048	18-Oct-08	Taylor	A	0.10	1	4
42	20449	19-Oct-08	Memory	A	0.10	2	9
43	20710	22-Oct-08	Watson	A	0.10	1	4
44	21004	26-Oct-08	Shawnee	A	0.10	2	5
45					4.60		
46							

2008 IGNITION SUMMARY

CAUSE	COUNT
1 Lightning: 0	0
2 Equipment: 2	2
3 Smoking: 0	0
4 Campfire: 18	18
5 Debris burning: 2	2
7 Arson: 3	3
8 Children: 1	1
9 Miscellaneous: 18	18
TOTAL	44
USFS	
24	
OTHER	
	20

2009 TMU USFS IGNITION DATA

TMU Fire No.	Incident No.	Date	Incident Name	Class	Acres	Land Status 2=SRA	Star Cause
1	CA-TMU-009436	18-May	MEMORY		0.00	2	9
2	CA-TMU-009570	20-May	CABIN		0.10	1	9
3	CA-TMU-009666	21-May	CASCADE		0.10	2	5
4	CA-TMU-010137	26-May	DONNA		0.10	1	4
5	CA-TMU-012181	22-Jun	POPE		0.10	1	9
6	CA-TMU-012584	27-Jun	WATSON		0.10	1	4
7	CA-TMU-012613	27-Jun	LEAF		0.10	1	9
8	CA-TMU-012653	28-Jun	ROCK		0.10	1	4
9	CA-TMU-012663	28-Jun	LAKEVIEW		0.10	1	4
10	CA-TMU-013096	3-Jul	BLACKWOOD		0.10	1	9
11	CA-TMU-013109	3-Jul	WATSON 2		0.10	1	4
12	CA-TMU-013197	4-Jul	BEAVER		0.10	1	4
13	CA-TMU-013217	4-Jul	MONTREAL		0.10	1	9
14	CA-TMU-013295	5-Jul	TIN CAN		0.10	1	4
15	CA-TMU-013505	5-Jul	VISTA		0.10	2	4
16	CA-TMU-013330	5-Jul	BLACKWOOD 2		0.10	1	9
17	CA-TMU-013751	11-Jul	TRASH		0.10	1	4
18	CA-TMU-013962	13-Jul	MCFAUL		0.10	1	9
19	CA-TMU-014020	14-Jul	LILY		0.10	1	4
20	CA-TMU-014106	15-Jul	TAHOE		0.10	2	4
21	CA-TMU-014129	15-Jul	COMMONWEALTH		0.10	2	9
22	CA-TMU-014218	16-Jul	MEEKS		0.10	1	9
23	CA-TMU-014224	16-Jul	LOOP		0.20	1	9
24	CA-TMU-014323	17-Jul	RIVER		0.10	1	9
25	CA-TMU-014612	20-Jul	SHERYL		0.10	1	3
26	CA-TMU-014902	24-Jul	SHELLEY		0.10	1	4
27	CA-TMU-014974	25-Jul	LUTHER		0.10	1	4
28	CA-TMU-015050	26-Jul	NORTH		0.10	1	4
29	CA-TMU-015184	27-Jul	FALLEN		0.50	1	4
30	CA-TMU-015204	27-Jul	CAMP		0.10	1	9
31	CA-TMU-015477	31-Jul	BEAVER 2		0.10	1	4
32	CA-TMU-015602	1-Aug	JACOBSON		0.10	1	4
33	CA-TMU-015649	1-Aug	PIONEER		0.10	1	9
34	CA-TMU-015693	2-Aug	DIAMOND		0.10	1	4
35	CA-TMU-015705	2-Aug	GRAVEL		0.10	1	4
36	CA-TMU-015703	2-Aug	SPRING CREEK		0.10	1	4
37	CA-TMU-015845	4-Aug	PLAYER		0.10	2	9
38	CA-TMU-016122	7-Aug	NORTH 2		0.10	2	4
39	CA-TMU-016755	16-Aug	BENCH		0.10	1	4
40	CA-TMU-016761	16-Aug	HOMER		0.10	1	4
41	CA-TMU-016875	17-Aug	TAMARACK		0.10	1	4
42	CA-TMU-017509	20-Aug	FIBER		0.10	1	3

43	CA-TMU-017288	23-Aug	SPOON		0.25	1	4
44	CA-TMU-017343	24-Aug	LAKE		0.10	1	4
45	CA-TMU-017473	25-Aug	SECRET		0.20	1	7
46	CA-TMU-017834	30-Aug	NORTH 3		0.10	1	4
47	CA-TMU-017879	5-Sep	HIDDEN		0.10	1	4
48	CA-TMU-018270	5-Sep	OLD		0.10	1	9
49	CA-TMU-18567	8-Sep	KAHLE		0.10	1	4
50	CA-TMU-18585	8-Sep	KEYS		1.00	2	7
51	CA-TMU-18683	9-Sep	TRUCKEE		0.10	2	4
52	CA-TMU-019351	18-Sep	SHAWNEE		0.10	2	4
53	CA-TMU-020068	27-Sep	DARDANELLE		0.10	1	4
54	CA-TMU-020194	29-Sep	VANSICKLE		0.30	2	4
55	CA-TMU-020483	3-Oct	WEST		0.10	2	9
56	CA-TMU-022641	31-Oct	CLUB		0.10	1	4
57	CA-TMU-023270	8-Nov	MUSHOGEE		0.10	2	7
58	CA-TMU-023425	11-Nov	MCKINNEY		0.10	1	7

7.55

Yellow Highlight: Fire located on SRA within AEU (El Dorado County)

Blue Highlight: Fire located on SRA within NEU (Placer County)

2009 TMU USFS IGNITION SUMMARY

CAUSE	Chart label	COUNT
1	Lightning: 0	0
2	Equipment: 0	0
3	Smoking: 2	2
4	Campfire: 34	34
5	Debris burning: 1	1
7	Arson: 4	4
8	Children: 0	0
	Miscellaneous:	
9	17	17
TOTAL		58

USFS	STATE/LOCAL
45	13

7.55 ACRES BURNED

Emergency Evacuation Routes

The Lake Tahoe Basin's emergency evacuation routes consist of primary travel routes which are generally state highways that surround Lake Tahoe along its shoreline, with some highways on the north shore and the south shore offering access out of the Basin via an overland pass to a major highway such as 80, 50 or 395. The highways on the California side include Highway 50, Highway 89, Highway 267, and Highway 28. On the Nevada side, highways include Highway 28, Highway 431 (Mt. Rose Highway), and Highway 207 (Kingsbury Grade). The

travel routes along the west shore (Highway 89) and the east shore (Highway 28) of Lake Tahoe do not afford access out of the Basin until one reaches either the south shore (Highway 50, 89/88 or 207) or the north shore (Highway 431, 267 or 89 north). This lack of egress creates the potential for traffic jams, decreased evacuation time, and increased risk of loss of life in the event of a major emergency such as a wildfire.

TRPA Regional Plan Update

The Tahoe Regional Planning Agency (TRPA) is a bi-state agency created by the states of Nevada and California under a bi-state compact in order to lead the cooperative effort to preserve, restore and enhance the unique natural and human environment of the Lake Tahoe basin. The TRPA regulates land use, rate of growth and impacts to the scenic environment among other things. The TRPA's Regional Plan, adopted in 1987 is due to be updated by 2011. This document guides all land use decisions in the Basin and is the basis for all of TRPA's ordinances and environmental codes. The twenty draft documents for all elements and subelements being circulated with stakeholder groups while detailed environmental studies are underway to compare four alternative scenarios for the regional plan update are as follows: Land Use, Housing, Noise, Natural Hazards, Air Quality, Water Quality, Community Design, Transportation, Conservation, Vegetation, Wildlife and Fisheries, Soil Conservation, Shorezone, Scenic, Open Space, Stream Environment Zone, Cultural Resources, Energy and Climate Change, Recreation, and Public Services and Facilities.

The TRPA Lake Tahoe Regional Plan contains Goals and Policies which support Implementation Measures. The aim of the draft documents for the twenty elements and subelements listed above is to assist anyone reviewing the list of proposed changes to understand how each measure could be affected in each alternative scenario. The TRPA has drafted four different Regional Plan alternatives for analysis in the Environmental Impact Statement. The alternatives are as follows:

- Alternative One is the “No Project” alternative. Under this alternative, no changes would be made except what is necessary to keep current with the regulations of other federal and state agencies.
- Alternative Two, the alternative proposed by TRPA staff, focuses on a combination of incentives, regulation, and collaboration to achieve the environmental thresholds required by the Bi-State Compact.
- Alternative Three is largely like Alternative One except that Alternative Three allows for development to continue at a pace very similar to the one we have seen over the past 20 years.
- Alternative Four takes the approach that a decreased amount of allocations and an increased amount of regulation is the best way to

ensure that the threshold within the twenty elements and subelements are attained.

CAL FIRE is directly involved with the planning process and is a member of the stakeholder group that includes the Lake Tahoe local, state and federal government fire chiefs.

Tahoe Basin Fire Safe Council Subchapter of the Nevada Fire Safe Council

In March 2001 AEU staff in the Tahoe Basin submitted a grant proposal in the amount of \$72,000 to the Community-Based Wildfire Prevention Grant Program and was awarded those funds to establish a Fire Safe Council for the California portion of the Tahoe Basin. The requested grant was awarded and since then the Tahoe Basin Fire Safe Council has become fully functional, including acquiring non-profit corporation status, various grants, and final completion in Spring 2005 of the Tahoe Basin Community Wildfire Protection Plan to which AEU staff provided response.

In January 2005, the Tahoe Basin Fire Safe Council merged with the (Northern) Nevada Fire Safe Council based in Carson City, Nevada. However, the Tahoe Basin has retained its original administrator who now acts as the Tahoe Basin Coordinator for the Nevada Fire Safe Council, and continues to retain an office in South Lake Tahoe. The Tahoe Basin Fire Safe Coordinator for the Nevada Fire Safe Council has been active in securing various grants, in addition to conducting routine business of the council.

Lake Tahoe Basin Fire Departments

located in the Incline Village area, and the North Tahoe Fire Protection District located in California near the Brockway area adjacent to the California-Nevada state line. The Lake Valley Fire Protection District is also The Tahoe Basin area fire departments are located within both California and Nevada, and work very closely together regarding fire and EMS service issues. Local Tahoe basin- area fire departments in California include Fallen Leaf, Lake Valley, Meeks Bay, Squaw Valley, Alpine, City of South Lake Tahoe, Northstar, Truckee, and North Tahoe, as well as CAL FIRE and the USFS Lake Tahoe Basin Management Unit. Local Tahoe basin-area fire departments in Nevada include North Lake Tahoe and Tahoe-Douglas Fire Departments. In addition, local, state, and federal fire departments from nearby Washoe and Carson Valleys in Nevada and Alpine County in California participate in the Tahoe Regional Chiefs Association. These fire departments include the Reno Fire Department, Sparks Fire Department, Carson City Fire Department, East Fork Fire Department, Markleeville Volunteer Fire Department, Woodsford Volunteer Fire department, Bear Valley Volunteer Fire Department, Kirkwood Volunteer Fire Department, Humboldt-Toiyabe National Forest, and the Nevada Division of Forestry.

Due to recent fires including the 2002 Gondola Fire near Heavenly Valley Ski Resort, the 2004 Waterfall Fire northwest of Carson City, and the 2007 Angora Fire near Meyers and the City of South Lake Tahoe, the fire departments within the Tahoe Basin have been working aggressively to perform fuel reduction efforts within their districts and to increase public awareness of the necessity of

defensible space clearing. Subsequently, the Amador-El Dorado-Sacramento-Alpine Unit chose to fund many fuel reduction projects using Proposition 40 grant monies from FY 04-05 through 07-08 to Tahoe area fire departments, the Nevada Fire Safe Council, and California State Parks.

Additional fuels reduction efforts include the hiring of fire department-employee crews to perform fuels reduction efforts within the North Lake Tahoe Fire Protection District hiring crews as fire department employees to perform fuels reduction work, including for the Proposition 40 projects.

Timber Harvesting Plans and Timber Harvesting Exemption Notices

Forest health is paramount to maintaining the water quality of Lake Tahoe, and efforts to prevent loss by catastrophic wildfire and other pathogens precipitate landowners' decision to plan and prepare harvesting documents in the Tahoe Basin. Field recommendations by CAL FIRE staff regarding slash treatment and silvicultural treatments are thoroughly discussed and recommendations developed, which furthers the goals of the Prefire Management Plan.

In general, most tree removal activities within the Tahoe Basin are conducted on small, developed lots less than 3 acres in size. Such landowners commonly elect not to commercialize the small amount of product generated. Therefore, such non-commercial projects do not require a harvesting document be submitted to CAL FIRE for review and approval. On larger, mostly undeveloped ownerships, such as the California Tahoe Conservancy lands, tree removal is commonly elected for commercial use as the higher amount of wood generated from the ownerships is sold as fuelwood to the public, especially in the South Lake Tahoe vicinity where the more highly desirable Lodgepole Pine fuelwood is available.

Very few large (over 10 acres) non-federal ownerships exist within the Tahoe Basin. Consequently, very few Timber Harvesting Plans for areas located within the Tahoe Basin are submitted to CAL FIRE and commercial tree removal operations are generally conducted under Timber Harvesting Exemptions. However, regardless of whether or not a landowner elects to engage in a commercial tree removal venture, other agencies within the Tahoe Basin, such as the Tahoe Regional Planning Agency and the Lahontan Regional Water Quality Control Board, require the landowner to comply with additional and generally more stringent regulations regarding tree removal on non-federal lands. The Lahontan Region Water Quality Control Board and the Tahoe Regional Planning Agency each review very closely all harvesting activities occurring within the Tahoe Basin.

In May 2005, the State Board of Forestry and Fire Protection adopted emergency rule language regarding allowing the removal of live trees within Watercourse

and Lake Protection Zones (Stream Environment Zones as defined in TRPA ordinance) within the Lake Tahoe Basin non-federal lands by amending Title 14 CCR §1038 and §1038 (f) and is anticipated to become effective by June 2005. The primary emergency nature of the regulation change was to provide regulatory relief for fuels reduction activities for summer 2005 relative to permitting live tree thinning in Watercourse and Lake Protection Zones/Stream Environment Zones for fuel hazard reduction. Due to the discussions resulting from this rule change, the Board of Forestry and Fire Protection now acknowledges and understands the Forest Practice rules inconsistencies and complications related to exemption rules in Lake Tahoe and fully intends on considering Unit suggestions regarding permanent rule change.

California Tahoe Conservancy

The California Tahoe Conservancy (CTC) conducts fuel reduction projects throughout the Lake Tahoe Basin through their Urban Land Management Program. The California Tahoe Conservancy, through contract, funds CAL FIRE personnel to perform various professional forestry duties, including those duties required to implement fuel breaks. In addition, the CAL FIRE provides professional forestry advice and services, including but not limited to, preparation and implementation of THPs, Exemptions and vegetation management projects on California Tahoe Conservancy properties. The CAL FIRE also works with the California Tahoe Conservancy Forest Habitat Enhancement Program on fuel reduction, forest health and wildlife habitat enhancement projects located within the urban interface and general forest areas.

In January 2005, CAL FIRE was authorized approximately 40 million dollars of Proposition 40 funds over 5 years by the Legislature for fuels reduction projects which would result in improvement and protection of watersheds and their water quality and assets at risk. Approximately \$625,000 was allocated to CAL FIRE expressly for authorizing its use to the California Conservation Corp for fuels reduction projects on California Tahoe Conservancy lands.

Service Forestry

The Tahoe Regional Planning Agency (TRPA) requires a TRPA Tree Removal Permit to be issued by a TRPA Registered Professional Forester (or their designee through an MOU such as the case with the California Tahoe Conservancy and some Tahoe Basin fire districts), for the removal of any green tree six inches DBH or greater from all ownerships located within the Tahoe Basin. The requirement for this permit applies to both non-federal and federal lands.

A Memorandum of Understanding (MOU) between the CAL FIRE and TRPA was established in the 1980's to better serve the public and facilitate the tree removal process. The CAL FIRE Area Foresters, at the request of an individual landowner, inspected, marked, and issued the TRPA Tree Removal Permit. During the time CAL FIRE assisted with the program, no permit fee was charged to the landowner for this service. Due to funding problems and liability concerns, CAL FIRE discontinued its role in the TRPA Tree Removal Program permit process in 2002. Moreover, CAL FIRE formally terminated the MOU with TRPA

in August 2006. The TRPA now requires California residents to either pay a \$50.00 fee per site visit to the TRPA to cover the cost of a TRPA forester to provide this service or contact the local fire department who authorized by TRPA through an MOU to provide this service since the Angora Fire in 2007.