

## **SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES**

### **A: FIRE PREVENTION**

#### **ENGINEERING & STRUCTURE IGNITABILITY**

Through comprehensive engineering and the law enforcement programs are what the Tulare Unit strives to prevent fires. Reduction of loss from Tulare Units wildlands each year is the goal. Tulare Unit works with communities and non-profit groups to educate the public and prevent wildland fires.

Tulare Unit also enforces the LE- 100 program (Fire Hazard Inspections). All structures in the State Responsibility Area are inspected. Home owners who don't comply with the Public Resource Code (PRC) section 4290 are cited. The idea behind the program is not to issue a citation, but preventing the loss of structures when fire is moving through communities.

#### Reducing Structural Ignitability

The communities within the confines of the Tulare Unit have always been confronted by the threat posed by uncontrolled wildland fire. The growth off the population has continued unabated ever since. As such the structures within the Unit reflect well over 100 years of the evolution of accepted building materials and techniques. Only within the very recent past have structures been designed and built with a focus on reducing the likelihood of ignition due to wildland fire.

It is a fact recognized by all fire control personnel in the Unit and the local government fire organizations that any ignition can quickly result in a fire that immediately threatens structures. CAL FIRE's entire fire control system is designed to bring to bear a rapid initial attack capable of snuffing out the threat ASAP. Never the less, fires do progress rapidly to the point of being a significant threat to structures. Whether it's 1 acre, 100 or 1,000 acres, structures will be threatened; and some will burn. In the case of small rapidly growing fires a means of structure ignition is direct flame impingement and / or radiant heat. In the case of very large, landscape scale fires a primary means of ignition is airborne embers. The larger the fire, the higher the likelihood that structures will burn, due in part to the fact that there are simply not enough fire control resources available to immediately protect every threatened structure during a rapidly progressing fire. Recognition of this fact by property owners should encourage them to take personal responsibility for improving the safety of their structures by following the steps required and or recommended to reduce the threat of structure ignition.

Fire Hazard Severity Zones and Building Standards and Materials for Building Code Chapter 7A, 2007 California Building Code (CBC)  
The California Building Commission adopted the Wildland-Urban Interface codes (Chapter 7A) in late 2005. The majority of the new requirements took effect in 2008. These new codes include provisions for ignition resistant construction

standards applicable to the Wildland Urban Interface (WUI); with an emphasis on protecting against airborne embers. During this same period of time CAL FIRE initiated a statewide project to update the Fire Hazard Severity Zone designations within the WUI, using the latest science based analysis techniques and geographic information system technologies to delineate those concentrations of wildland vegetation fuels likely to produce embers when involved in fire. Starting with the State Responsibility Areas in 2005 and concluding with Local Responsibility Areas adjacent to or within the SRA in 2008, Fire Hazard Severity Zones were field validated, updated as required and adopted by local government (County and City governing and regulatory entities), before official CAL FIRE maps were produced and released to local government.

The Chapter 7A Building Code requirements and the associated Fire Hazard Severity Zones have been enacted and are being enforced by local government building officials as development plans work their way through the approval process. The updated zones will also be used by property owners to comply with Natural Hazards Disclosure requirements at the time of a property sale. Local government is encouraged to integrate the updated FHSZ's into the Safety Element of their General Plans.

Property owners, developers, contractors, building materials businesses, and product designers can find specific wording and answers to questions regarding Building Code Chapter 7A, Fire Code Chapter 47, PRC 4290 and 91, Title 14 and other related information at the following CAL FIRE Office of the State Fire Marshal website:

[http://www.fire.ca.gov/fire\\_prevention/fire\\_prevention\\_wildland\\_codes.php](http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_codes.php)

The Prevention Bureau, through its Fire Captain-Pre Fire Engineer position supports and collaborates with a wide variety of agencies and community members in the planning, organizing, and documentation of fuel reduction projects throughout the Unit.

Starting in 2010 the Pre Fire Engineer began the long slow process of implementing the State Board of Forestry and Fire Protection's new 2010 Strategic Fire Plan for California. Under that umbrella document this Unit Fire Plan attempts to document all efforts within the Unit to mitigate the threat posed by wildland fire. One of the primary means by which this is undertaken is through on-the-ground projects designed to create fuel breaks adjacent to threatened communities and help private landowners and organizations reduce the threat within their property boundaries.

## **IGNITION DATA:**

<b>Fire Cause</b>	<b>Number of fires 2006-2007</b>
Unknown	0
Undetermined	15
Lighting	0
Campfire	0
Smoking	4
Debris Burning	6
Arson	23
Equipment Use	13
Playing With Fire	2
Miscellaneous	9
Vehicle	0
Rail Road	0
Power lines	1
<b>Total=</b>	<b>73</b>

<b>Fire Cause</b>	<b>Number of fires 2007-2008</b>
Unknown	2
Undetermined	17
Lighting	2
Campfire	0
Smoking	2
Debris Burning	1
Arson	22
Equipment Use	12
Playing With Fire	3
Miscellaneous	10
Vehicle	0
Rail Road	0
Power lines	0
<b>Total=</b>	<b>71</b>

<b>Fire Cause</b>	<b>Number of fires 2008-2009</b>
Unknown	0
Undetermined	13
Lighting	5
Campfire	0
Smoking	1
Debris Burning	1
Arson	16
Equipment Use	15
Playing With Fire	1
Miscellaneous	23
Vehicle	0
Rail Road	0
Power lines	1
<b>Total=76</b>	

<b>Fire Cause</b>	<b>Number of fires 2009-2010</b>
Unknown	0
Undetermined	24
Lighting	0
Campfire	0
Smoking	0
Debris Burning	3
Arson	17
Equipment Use	14
Playing With Fire	0
Miscellaneous	9
Vehicle	0
Rail Road	0
Power lines	2
<b>Total=69</b>	

<b>Fire Cause</b>	<b>Number of fires 2010-2011</b>
Unknown	2
Undetermined	17
Lighting	2
Campfire	0
Smoking	1
Debris Burning	4
Arson	9
Equipment Use	3
Playing With Fire	2
Miscellaneous	2
Vehicle	0
Rail Road	0
Power lines	2
<b>Total=44</b>	

## **INFORMATION AND EDUCATION**

Information & Education is an integral part of the Fire Prevention Program. The focus is to reach out to the elementary school children with match & lighter safety education. In addition to the school programs, it is imperative to educate the public on the importance of Defensible space clearance, the proper method to burn hazard reduction materials, and the correct times to use power equipment to achieve the code requirements.

The basis fires safety program that teaches children not to play with matches lighters, or fire is the “Team Teaching” program. Team Teaching targets Preschool through second grade.

Team Teaching is a highly professional program developed by teachers, CAL FIRE personnel, and child psychologists. This program utilizes Smokey Bear an internationally recognized fire prevention symbol to teach children not to play with matches, lighters, or fire. Pre-planning is the most important factor for a successful team teaching program. This year a total of 631 contacts were made with children.

The first step in planning a fire prevention program is to identify what the Unit’s priorities are. Review the Unit’s fire plan to determine what fire causes occur in your target areas. For example, child/match caused fires may have dropped in occurrence due to heavy saturation of schools with “Team Teaching” and other school education programs over the years, while “equipment use” or “debris burning” caused fires have increased. This would indicate a change in priorities. The Unit could then choose to develop an annual maintenance program for “Team Teaching” and redirect emphasis on “equipment use” and “debris burning” programs or assign additional personnel to assist with the implement programs to meet those needs in targeted areas.

### **Defensible Space**

The department has instituted easy-to-use defensible space inspection form. This locally developed form, using the agency LE100 as inspiration, contains detailed explanations of violations and how to correct them. Used by agency inspectors alike, its checkbox format acts as a detailed guide for inexperienced inspectors, a prompt for veteran inspectors while minimizing the amount of writing required, and speeding up and standardizing inspections.

Included with the inspection form is an informational hand out “Wild fire is coming Is Your Home Ready”. The hand out covers defendable space, How to do things the right way, hardening your home, plant and tree spacing, horizontal spacing for trees / shrubs and a homeowner checklist.

Property owners living in State Responsibility Areas (SRA) are required by Public Resource Code (PRC) 4291 to maintain clearance of flammable vegetation around their property. A property owner's clearance responsibility is limited to 100 feet from his or her structure(s) or to the property line, whichever is closer, and is limited to their lands. However, coordination with adjacent landowners to achieve maximum defensible space is encouraged.

Short of expensive remodel and retrofit projects for existing structures, compliance with existing Public Resources Code 4291 requirements is the single most effective means by which property owners can reduce the likelihood of a fire. PRC4291 clearance requirements: a 30' wide Defensible Space zone immediately adjacent to the structure, plus an additional 70' Reduced Fuel zone, for a total of 100' of "Clearance" around all structures.

The Prevention Bureau and each Battalion in the Unit is actively engaged in PRC 4291 education and compliance efforts, including: on-sight inspections, self inspection forms, face to face education at the fire stations, participation in community events, close cooperation with Home/Property Owner Associations, and collaborative efforts with the local Fire Safe Councils and Local Government and Federal fire control and land management agencies.

## Fire Prevention Roadside Sign Program

Battalion staff will continue promoting the fire prevention message regarding equipment caused fires and a prevention message via the 4x8 roadside signs. The signs are placed in high traffic areas in every battalion. There are 2 in the Badger Battalion, 7 in the Kaweah Battalion, 7 in the Tule Battalion, and 1 in the Fountain Springs Battalion. Being a primary entry point for commuters, part-time residents and visitors to Tulare Co. these stretches of highway and roads experiences a very large volume of traffic, making it an excellent point from which to publicize our fire prevention messages. This is an annual program in which signs are posted throughout the fire season.



Fire Prevention signs in the Kaweah Battalion

## **VEGETATION MANAGEMENT**

Natural Resource Management is supporting the TUU Fire Plan through Forest Practice activities as well as Vegetation Management Programs and other fuel reducing grants. Through the Forest Practice Program we are encouraging healthy forest throughout the unit. Landowners as well as local Registered Professional Foresters are currently reducing overcrowded timber stands. This is being implemented by either Timber Harvest Plans (THPs) or 1 one the several other timber exemptions.

TUU currently has 2 Vegetation Management Programs (VMP) approved with at least 2 others in the process. The VMPs and other fuel reduction grants typically have the same desired outcome. Both of these look at reducing the amount of high fires vegetation and providing an opportunity to fight fire safely and aggressively. Both of these programs look at increasing the water table by reducing the amount of evapotranspiration in the watershed. Reducing the amount of hazardous brush will also help in the foraging of not only livestock, but wildlife as well. By doing these projects it also helps bring the natural mosaic back to the landscape.