

Fire Season 2007 – Protecting Your Home from Wildfire Plus Dates, Times & Locations for Brush Chipping By Rick Parfitt

The hot flames and the flying firebrands of the 1985 Lexington fire that almost burned down our home are vivid in my mind. There are many things that we can and should do to protect our homes from the next large wildfire that occurs periodically in our Mountain Community.

One critical item is to remove hazardous brush around our homes. At the end of this article I provide a list of dates, times and convenient locations where you can bring hazardous brush for disposal and chipping.

Lexington Fire

The 1985 fire charred the trunks of the trees around our property. My neighbor still tells the story of singed hairs on his arms as flames shot-up the side of a tree. He refused evacuation orders staying behind to protect and save his home with a garden hose. The fire lasted a week, destroyed 24 homes, burned 14,000 acres and involved the gallant efforts of fire fighting crews from all over California. In 1985 dollars, the property loss was 7 million dollars and suppression cost was 6 million dollars and 4,500 people were evacuated.

Our community is prone to wildfires. Local, state and federal officials have learned a lot since 1985. By studying the behavior of wildfires throughout California and the rest of the country, fire experts have established a set of recommendations for homeowners. By following these recommendations, a homeowner can reduce the chances that their home will burn down to 1% or less. Santa Clara and Santa Cruz County provide brochures, DVDs, chipping programs and courtesy site inspections to aid home owners.

Defensible Space is YOUR Responsibility

We all have a responsibility to take the necessary measures to protect our homes. When homes are close together, that responsibility can extend to our neighbors. In this article I outline some things that every homeowner should do to greatly reduce the risk that their home will perish in the next wildfire.

Most of California is periodically visited by wildfires. In fact, after tens of thousands of years, the ecology of the area has adapted to fire. Many plants and trees in our area require scarification, or the heat of a fire, in order to germinate. If you think fire occurs infrequently, consider Figure 1 which shows some of the recent fires in our area.

We will have more wildfires in and around our homes!

Reprints of this article are provided courtesy of Mountain Network News: <http://www.mnn.net/>.

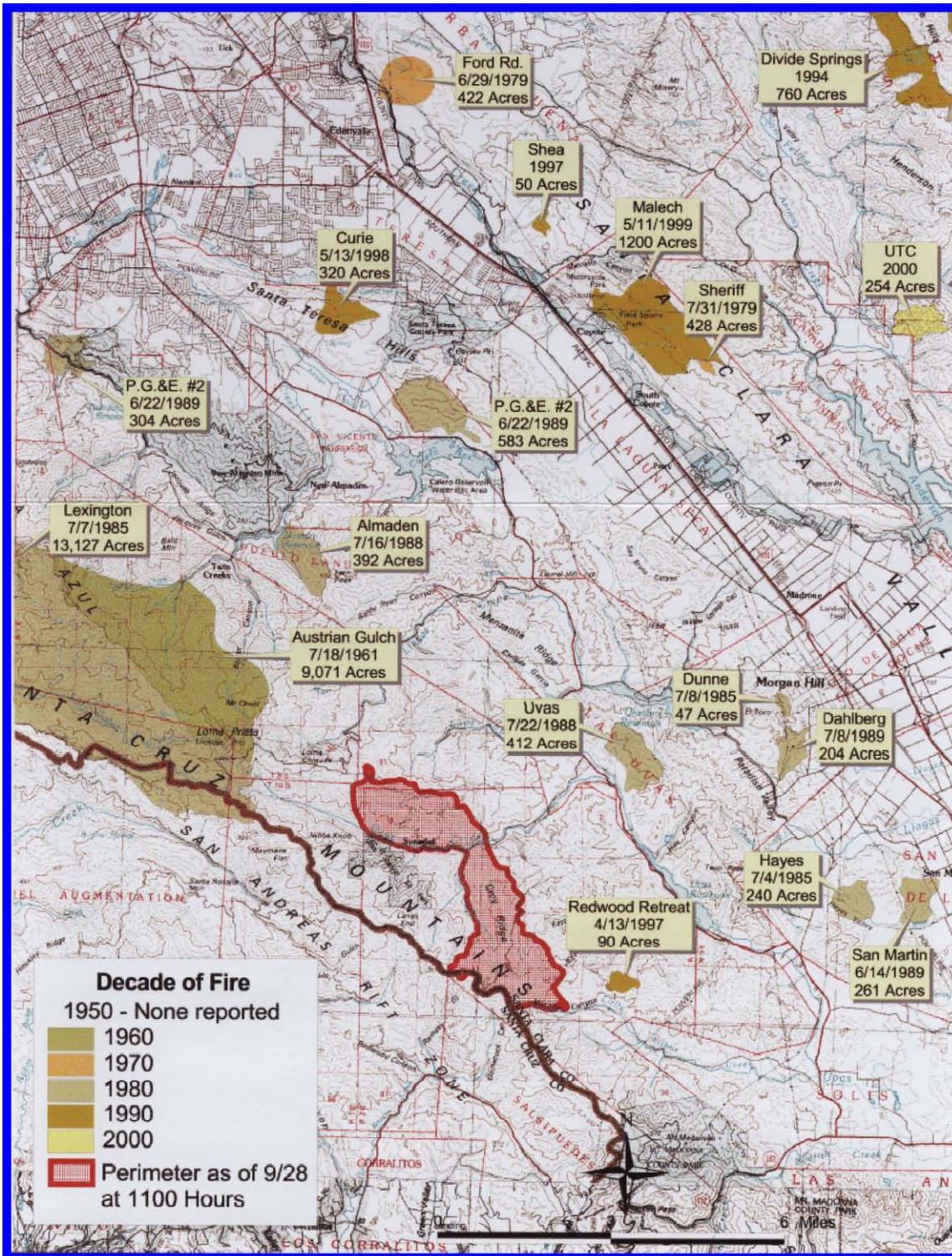


Figure 1 - Recent Wildfire History

The biggest single preventive measure you can take is to insure you do not have a shake or wood roof. If you do, replace it with a Class A roof. The largest contributor to homes loss during a wildfire is ignition from firebrands on a wood roof!

Reprints of this article are provided courtesy of Mountain Network News: <http://www.mnn.net/>.

Defensible Space

Once you have a fire safe roof, the next task is to create a Defensible Space. Figure 2 is an example of a home in Santa Cruz County that was surrounded by fire and survived unscathed. This homeowner created a space around their home where a fire could not easily spread or burn hot enough to ignite their home. For many years, the size of the defensible space required in California was a radius of 30' around the home. In January 2005, the size was increased to 100'. Inside the Defensible Space, the type of vegetation and its spacing is managed to reduce the chances of a wildfire igniting your home. Maintaining a Defensible Space requires attention to detail. For example, keep dry needles out of your rain gutters and tree limbs away from the house.



Figure 2 - Defensible Space Can Save Your Home

To understand the purpose of a Defensible Space let's look at the two ways a home can ignite: one is fire from a distance and the other is fire close to the house. During a wildfire, the heat radiated from the advancing fire can be so intense that the wood siding on a home can ignite without ever being touched by actual flames. In theory, if there is no

Reprints of this article are provided courtesy of Mountain Network News: <http://www.mnn.net/>.

combustible material within 100' of your house, even the fiercest crown fire or forest fire will not ignite your house from a distance. This theory was tested using a dense forest of Jack Pine and Black Spruce. In practice, different species of trees burn differently. The spacing of trees, reduction of ground fuels and other factors make it possible for flames to come much closer to your house without causing ignition. Each homeowner needs to look at the unique mix of vegetation and topology around their home. A home situated on a knoll where a steep canyon below may act as a chimney for flames to travel along needs to take additional precautions.

A 100' of Defensible Space does not mean a barren landscape. It means managing the mix of trees and shrubs around your home. When choosing landscaping, you want plants that don't burn easily. Keep highly flammable brush away from the sides of your house.

Let's look at direct ignition. Direct ignition occurs when the flames of burning material or flying embers come into contact with your home. During a large fire, embers or firebrands can travel over a mile, land on your roof, deck or other flammable debris around your home and cause ignition. The firebrands can also cause spot fires often jumping over fire breaks ahead of the main fire. During the 1985 fire, a strong wind did spread firebrands igniting spot fires hundreds of feet ahead of the main fire.

Our goal is to reduce the likelihood of a fierce fire within 100' of your home and make sure any firebrands or spot fires are not going to find flammable material on or around your house to ignite. Expert help is readily available. Local fire fighting agencies in both Santa Clara and Santa Cruz are available to do a courtesy site inspection. Phone numbers and who to contact are listed at the end of this article.

Request an On Site Inspection

Since my home is located in Santa Clara County, last year I called SC County Fire for a courtesy inspection. About a week later, they sent a knowledgeable inspector to my home, Deputy Marshal Julie Lenney. Together we walked around my home and she wrote a list of items that she wanted me to complete before the beginning of fire season (approximately May, depending upon weather). At the end of the visit we scheduled a time for her to return for a follow-up inspection. Here's a quick checklist to think about:

- 1) Eliminate all flammable materials (potential fuels) within 10 feet of the house
- 2) Remove dead debris from decks, wooden walkways, rain gutters and roofs
- 3) Keep tree limbs 10' away from the house
- 4) Inside the Defensible Space create breaks in the vegetation to prevent ladder fuels
- 5) Store firewood at least 30' away from the house
- 6) Clear brush around your driveway and roadway to allow fire truck ingress of 13.5 feet high and 13.5 feet wide.
- 7) Make sure your street address is clearly marked with reflective number at least 3" high on a contrasting background
- 8) Staple metal window screening over any openings or gaps in the eaves including low decks, walkways and crawl spaces

Reprints of this article are provided courtesy of Mountain Network News: <http://www.mnn.net/>.

- 9) Reduce or eliminate surface fuels for a radius of 100 feet around the house and prune lower limbs of trees at least 10 feet above the ground
- 10) Remove fuels from around propane tanks
- 11) Close-in elevated decks to protect from flying embers
- 12) Remove dead trees and other highly flammable vegetation, i.e. dead Tanoaks and French broom

The site visit was also a great opportunity to discuss some of my concerns and go over the basic check list that I work from each year. One of my personal goals is to preserve as much of the natural setting as possible. Our home is mostly surrounded by large trees, some steep slopes and a lot of native plants. All the trees within our 100' Defensible Space have had the lower limbs removed to a height of 15'. The one thick strand of trees that provided a path for the 1985 fire to approach our house is now covered by mostly mature trees. Over the years, I've slowly thinned the shaded canopy below these trees to reduce the amount of ground and ladder fuels.

I've only scratched the surface here. Other parts of our mountain community have different vegetation patterns. Homes that are surrounded by dense and highly flammable chaparral will need a very different approach to fuel reduction. These two guides provide lots of excellent information:

- 1) ***Living with Fire*** – This Santa Clara County FireSafe Council 20-page brochure is a good general guide for homeowners.
- 2) ***Controlling Nature's Wrath*** – This DVD shows both the fury of fire and a broad range of actions that we can take to protect our home.

Another resource is our local District Conservationist, Richard Casale, who works for the USDA. Mr. Casale also does courtesy site inspections and his contact information can be found at the end of this article. Our annual rainy season is another important consideration when creating a 100' defensible space. We get a large amount of rain in a short period of time. Many of our homes are located near steep slopes creating ideal conditions for a mud slide. While trees and plants can provide fuel for fires, they also help hold down our hillsides. Protecting against both mud slides and fires requires a balanced approach. Mr. Casale has expertise in both areas and a library of free information guides and booklets.

During his visit, Mr. Casale made a number of additional recommendations. He can also provide information on livestock management, road maintenance and creek side care. He suggested that I pull-up the French Broom (a highly flammable, non-native species with bright yellow flowers), while the ground is still wet. It is a 2-3 year project because seeds currently in the ground can continue to germinate for another year or two. He also recommended that I remove two dead Tanoaks, one standing and one on the ground. While these trees are both outside my 100' defensible area, he felt they provided unwanted fuel for any future fires.

Reprints of this article are provided courtesy of Mountain Network News: <http://www.mnn.net/>.

100' DEFENSIBLE SPACE Make Your Home FIRE SAFE

1 "Lean, Clean and Green Zone."
 – Clearing an area of 30 feet immediately surrounding your home is critical. This area requires the greatest reduction in flammable vegetation.

2 "Reduced Fuel Zone."
 – The fuel reduction zone in the remaining 70 feet (or to property line) will depend on the steepness of your property and the vegetation.

Spacing between plants improves the chance of stopping a wildfire before it destroys your home. You have two options in this area:

- 1** Create horizontal and vertical spacing between plants. The amount of space will depend on how steep the slope is and the size of the plants.
- 2** Large trees do not have to be cut and removed as long as all of the plants beneath them are removed. This eliminates a vertical "fire ladder."

When clearing vegetation, use care when operating equipment such as lawnmowers. One small spark may start a fire; a string trimmer is much safer.

Remove all build-up of needles and leaves from your roof and gutters. Keep tree limbs trimmed at least 10 feet from any chimneys and remove dead limbs that hang over your home or garage. The law also requires a screen over your chimney outlet of not more than 1/2 inch mesh.

1. These regulations affect most of the grass, brush, and timber-covered private lands in the State. Some fire department jurisdictions may have additional requirements. Some activities may require permits for tree removal. Also, some activities may require special procedures for: 1) threatened and endangered species, 2) avoiding erosion, and 3) protection of water quality. Check with local officials if in doubt. Current regulations allow an insurance company to require additional clearance. The area to be treated does not extend beyond your property. The State Board of Forestry and Fire Protection has approved Guidelines to assist you in complying with the new law. Contact your local CDF office for more details.

Contact your local CDF office, fire department, or Fire Safe Council for tips and assistance.
www.fire.ca.gov

April 2006

Figure 3 - Creating a Defensible Space

Final Word

Preparing your home and property to survive a major wildfire is an annual chore. If you skip a year, or have never thought about it, the task can be daunting. Don't get discouraged. Think about dividing everything that would be nice to do from what must

Reprints of this article are provided courtesy of Mountain Network News: <http://www.mnn.net/>.

get done. Divide the tasks over several years. This year tackle the most critical items and start a long term plan for the rest of the items.

There are also a number of contractors that you can hire to help with brush clearance and other tasks that may need to be done. The Mountain Resource Directory lists a number of such contractors.

If possible, give a helping hand. Sometimes, given the way property lines are laid out, it is important to collaborate with your neighbor. Let them know what you are doing, enlist their help, and don't forget to lend a helping hand to our seniors and others that might need a strong back.

Important Contact Information

Courtesy Home Inspections

- 1) Santa Clara County, the Fire Prevention Division, 408-378-4010
- 2) CDF (CAL FIRE) – Burrel Fire Station, 408-353-1022
- 3) Richard Cassale, District Conservationist, USDA, 831-475-1967

Copies of Living with Fire, & Controlling Nature's Wrath

- 1) District Office at Loma Prieta School
- 2) Burrel Fire Station
- 3) Santa Clara Fire Prevention Division, 408-378-4010
- 4) Online:
 - a. Living with Fire:
<http://www.sccfiresafe.org/FireSafe/LivingWithFire.htm>
 - b. Controlling Nature's Wrath :
http://www.fire.ca.gov/education_video.php

Helpful Web Pages

1) Santa Clara County FireSafe Council – We are currently working on a Model for a Community Wild Fire Protection Plan (CWPP) that we hope to use for our Mountain Community:

<http://www.SCCFireSafe.org/>

2) California Department of Forestry – Lot's of useful fire prevention information:

http://www.fire.ca.gov/education_100foot.php

Great Science Article on Defensible Space

Reducing the Wildland Fire Threat to Homes: Where and How Much?

http://www.nps.gov/fire/download/pub_pub_reducingfirethreat.pdf

Reprints of this article are provided courtesy of Mountain Network News: <http://www.mnn.net/>.

“Home ignitability implies that homeowners have the ultimate responsibility for W-UI (wildland-urban interface) home fire loss potential. Because the ignition and flammability characteristics of a structure and its immediate surroundings determine the home fire loss potential, the home should not be considered a victim of wildland fire, but rather a potential participant in the continuation of the wildland fire. Home ignitability, i.e., the potential for W-UI home fire loss, is the homeowner’s choice and responsibility.”

Neighborhood Chipping Programs

These programs are tailored to the needs of specific neighborhoods in our Mountain Community. They provide a commercial grade chipper and a crew to chip the brush. Home owners are responsibility for removing the brush from their homes and stacking it at pre-arranged locations. Only bring hazardous vegetation that can be safely chipped – NO DIRT, METAL, OR ROCKS. These inappropriate materials can damage the chipper and injure the operator. Poison oak and vines are acceptable.

<u>For Home Owners in:</u>	<u>Location</u>	<u>Dates</u>	<u>Primary Sponsor</u>
Redwood Estates	Pavilion Parking Lot	May 12th & May 19th (Saturdays)	Redwood Estates SA*
Chemeketa	Playground	May 18th to May 27th	Chemeketa Park MWC***
Aldercroft Heights	Aldercroft Rd Pullout & Homes	May 19th to May 27th	Aldercroft Heights CWD*

*Redwood Estates Service Association , ** Chemeketa Park Mutual Water Company, ***Aldercroft Heights County Water District

Redwood Estates Residents

Brush may only be dropped off between 8 AM and 4 PM on Saturday May 12th and on Saturday may 19th. Brush will be chipped as it is delivered. The Pavilion Parking lot can not be used for brush drop off on any other days!

Chemeketa Residents

Brush may be dropped off at the Chemeketa Playground from May 18th to May 27th only.

Aldercroft Heights Residents

Brush may be dropped off at the Aldercroft Rd turnout from May 19th to May 27th only. For those residents that will have brush picked-up from their home, please make sure you get your signed forms back to Kim Gardner so the chipping crew knows where to pick-up your brush.

The sponsoring agencies are always looking for ways to improve these programs and find ways to offer more coverage to other areas in our mountain community. We expect to have additional funding next year to increase the size and number of our chipping programs. As part of the Santa Clara County FireSafe Council I would love to hear from any home owner that has suggestions or ways we can improve our programs for 2008, RickP@SCCFireSafe.org.

Compliance with State Law

Both Santa Cruz County and Santa Clara County can cite home owners for not complying with California fire codes as they pertain to the 100' Defensible Space. Santa Clara County Fire has indicated that they will not cite home owners in the unincorporated area who request a courtesy inspection. CDF (now CAL FIRE) in Santa Cruz County follows a different procedure. After three failures to comply with their recommendations, a misdemeanor can be issued. The purpose of compliance is to help you and your neighbors stay safe from wildfires. The CAL FIRE staff in Santa Cruz County will be routinely inspecting homes this year.

In Santa Clara County, if you feel there is an extreme fire hazard in your neighborhood that needs to be addressed (citation & fines), you can call the County Weed Abatement Program for assistance at 408-282-3122. Santa Cruz County does not have a similar program at this time.

CAL FIRE, Santa Clara County Fire and the Santa Clara County FireSafe Council have been extremely helpful to me in the preparation of this article. They are eager to work with homeowners. Funds for the Neighborhood Chipping programs described in this article are being provided by Santa Clara County Fire and the Santa Clara County FireSafe Council.