

Siskiyou Daily News

Now is the perfect time to make your home fire safe

Contributed by Marjorie King

Facilitator of the Juniper Flat Fire Safe Council

We watched in horror as the drama played out on the news. The hapless Paradise residents were driving through a menacing hellscape, fleeing the winddriven conflagration dubbed the “Camp Fire.” More than a month after it started, 1,065 firefighters finally succeeded in containing the deadliest and most destructive fire in California’s history. There were 153,336 charred acres, and 13,972 residences, 528 commercial and 4,293 other buildings were gone. A heartbreaking and unprecedented 86 civilians had lost their lives and three firefighters suffered injuries.

When the smoke cleared, horror turned to astonishment as there emerged from amidst all the devastation, against all odds and scattered throughout, a few houses that remained untouched by fire.

Amid charred buildings there stood green trees. How did this happen? Why did some of the houses survive? How are the trees still green?

Speakers from CAL FIRE, Siskiyou County Office of Emergency Services, University of California Division of Agriculture and Natural Resources, and UC Berkeley Cooperative Extension discussed these questions and gave a preview of new recommendations at a recent workshop organized by the Fire Safe Council of Siskiyou County. “Protecting Your Home and Land from Wildfire: Defensible Space and Construction, to Improve Your Odds of Survival” was a free workshop attended by about 60 people in Yreka.

The three-hour workshop was packed with information gleaned from fire scientists studying last year’s wildfires and laboratory research. Changing climate: high winds, long periods of hot, dry weather and extended fire seasons means that fire behavior is changing, and we must adjust our behavior, too.

The role of embers in spreading fire is gaining more attention and resulting

in new recommendations for protecting our homes. There are changes coming in rules about vegetation around our homes, too. Ever heard of a “Blue Dot Campaign?” You will! Planning to

build a new deck, update your windows, put on a new roof, or landscape around your home? Read this first.

Steve Quarles, a Home Fire Protection and Wood Durability Advisor, retired from a 26-year career at the UC Cooperative Extension, was part of a research group that used a wind tunnel and ember generator to analyze what makes a building vulnerable to windblown embers, and to find strategies to mitigate the vulnerability. A house was placed on a turn table in the wind tunnel, so researchers could see where embers enter the home.

“Homes survive because of things you do to vegetation and other combustibles on your property, but also things you do to your home,” said Quarles. “It must be a coupled approach because no matter what you do to your space, wind-blown embers can blow over it. They blow over multilane highways.”

Embers can ignite a home directly or indirectly, Quarles explained. Indirect ignition comes when embers ignite flammable materials such as plants, wood piles or pine needles near a home, which then lead to the home catching fire. An example of direct ignition is embers entering an attic vent or broken window.

Radiant heat from a fire can spread the fire up to 20 feet or more. “This is why it is so important to keep wood piles away from your home,” Quarles said. Radiant heat is why fire spreads rapidly when homes are close to one another, and why we must be even more aware of building materials when neighbors’ homes are near.

Windows are vulnerable, especially the glass itself, but the frame can also burn. Multi-pane windows, especially if at least one of the panes is tempered glass, are best. Tempered glass is three or four times as resistant to heat as ordinary window glass.

“Hung” vinyl frame windows – the kind that raise and lower - must have

metal reinforcement because vinyl can easily deform, allowing the glass to fall out. Look for an American Architectural Manufacturers Association-certified window rating to indicate that the window has the metal reinforcement. Quarles recommends exterior metal shutters for all windows.

Decks should have a noncombustible zone around and under them.

“Do not store lumber under your deck,” said Quarles. “No decking material will resist that kind of fire under it and embers will ignite that. When your home is threatened by wildfire, you will always have to worry about embers falling on your deck,” Quarles said.

Cedar and redwood are easily ignited by embers, while plastic composites are harder to ignite by ember exposure. However, composites make a big fire when ignited.

Roofs are vulnerable spots, and can be ignited by pine needles, leaves and other flammable debris, even if they have a Class A fire rating, as are most roofing materials on the market today.

That is why overhanging branches are a hazard – they drop debris on the roof. There are a variety of ways to protect the gutters and roof edges, from covering gutters to prevent debris from accumulating to protecting roof edges with metal products.

Skylights should be domeshaped on a flat roof to keep debris from piling up on top of them. A flat skylight is better on a steep-sloped roof because a domed skylight can act as a wall, collecting debris above it.

“Roof vents are known to be vulnerable to ember entry into the attic space ... and can ignite combustible things stored in the attic,” said Quarles. Mesh to cover vents comes in quarter inch, eighth inch and sixteenth inch. Embers blown by high winds can be smaller, so homeowners are better off with a finer mesh screen, Quarles said. There remains some vulnerability but there are other design features that can help protect vents.

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No matter how much you do to protect your home, you still must prepare to leave as early as possible, so firefighters can do their job. There are several ways you can help firefighters protect you, says Rick Satomi, UC Cooperative Extension Area Forestry and Natural Resources Advisor for Shasta, Trinity and Siskiyou counties.

The Blue Dot System alerts firefighters to the location of a nearby water source so they don't waste time searching, perhaps in dense smoke, on an unfamiliar property. Small blue reflectors – dots – are placed on the reflective address sign to signify water is available on the property, then a large, four-inch blue reflector is placed above each hose bib or other water source. Reflective address signs with standard four-inch numbers make your address easy to find.

Other tips include checking your driveway to make sure a large fire truck can pull in and turn around easily and clearing flammable vegetation away from roadways and driveways to maintain a defensible space around your home and all buildings. Residents should also sign up for CodeRED Emergency Alert System to get a head start on evacuating, so firefighters can focus on fighting fires instead of rescuing us. You can do that at [www.co.siskiyou.ca.us/content/coderedemergency-](http://www.co.siskiyou.ca.us/content/coderedemergency-alert-system) alert-system Defensible Space is a term that describes landscape treatments within 100 feet of your home and other structures that will help protect your home from an advancing

fire, protect the surrounding area from a fire that originates in your home, and gives firefighters a safe place to take a stand against fire. Done properly, it results in an attractive, park-like setting. It may require removing brush, moving wood piles, limbing up, removing deadwood and increasing space between trees, and can be a big job.

Start at the home and work your way out from there, said Satomi. Don't wait for high risk fire season and the health-threatening smoke that it brings. Now is the time to get to work on creating defensible space.

Visit www.readyforwildfire.org/Prepare-For-Wildfire/ to learn more about defensible space.

We may see defensible space recommendations that include the removal of all flammable material, including fire resistant plants, within five feet of homes and other buildings. Fire resistant plants are slower to burn than many others, but all plants will burn – even cactus, Satomi said. Wood and bark chips should be kept at least five feet away. “Hardscape” recommendations include having walkways go all the way to the house, using rocks or pebbles for ground cover, or even just maintaining a strip of bare soil.

From five feet outward, choose native plants which are more adapted to our climate and avoid fragrant plants, which are fragrant because they produce volatile chemicals. Keep all plants compact and watered. Trees which are limbed up, deadwood removed, with space between them and are well-watered have a better chance of surviving both radiant heat and

ember exposure.

The Camp Fire was spread primarily by embers, so the healthy, green trees did not ignite.

Wooden fences? Do not allow debris to accumulate at their base. Replace any part of wooden fences within five feet of your home with metal fencing. Design matters, too. Visit this site for more information about wildfire-safer fences: www.ucanr.edu/sites/Wildfire/Side_of_House/Fences/.

Do you have PVC irrigation equipment? Protect it! “If it melts, that can drain your entire water supply,” said Satomi.

A reminder: every fire company in Siskiyou County needs volunteer firefighters. Contact your local fire company for more information.

For more information about making your home and surroundings more resistant to fire, visit: www.ucanr.edu/index.cfm?search=yes&q=fire.

For information about Fire Safe Council of Siskiyou County: www.firesafesiskiyou.com/.

And one more: American Architectural Manufacturers Association: www.aamanet.org/pages/product-certification

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