

FOOTHILL FIRE FLASH

El Dorado County Fire Safe Council (EDCFSC)

Inside this Issue

- Stories: A look back locally, at Grizzly Flats homes that survived the high intensity Caldor Fire
- 0-5 foot zone spotlight- moving plants
- Upcoming Assessor Trainings in April and May
- Upcoming FSC events

Homes that *did* survive L.A. Fires- inspiration for us all

Jeff Hoag, Battalion Chief, Wildfire Resiliency program, Amador El Dorado Unit of CAL FIRE, sat down with the Foothill Fire Flash recently to talk about his experience with the L.A. County wildfires of last month. He was part of the largest DINS (damage inspection after fires) team ever in California. After several weeks of examining both homes that survived and the many that were destroyed in the flatter, more densely populated

area of the Palisades Fire, he came home with these insights:

Could you really tell what had been there for homes that were destroyed?

Well, we could pretty well tell some things like siding. Even easier to tell were the roof type, and vents and their mesh size if they were present. Other attributes were more difficult to identify like if eaves were enclosed. It takes a trained eye to determine what was there before the fire. It depends on the makeup of the structure and the level of destruction. Everything we found was recorded on our reporting platform "Field Maps".

What was your sense as to the main reasons why some homes survived?

Four things really stood out to me for the homes that survived:

First, there was zero penetration by embers in homes that survived: there were no gaps >1/8 inch, in any vents, walls, eaves, etc.

Second, siding was non-combustible, such as stucco or fiber cement. Even in one instance where a burning home fell over right onto the house next to it, that house had non-combustible siding and did not catch fire and burn itself. Full non-combustible siding was important because these homes were all so close (many with 4 ft set-backs, so just 8 ft from each other). Where siding was wood, radiant heat and embers from one burning house caught the home next to it on fire, and on down the line.

Third was a clear, no plant, no combustibles, 0-5 foot zone around houses that survived. It truly made a big difference. I saw lots of piles of embers at the base of walls, where the walls were non-combustible and didn't catch on fire.



Embers can hit walls and accumulate at their base

And fourth, many surviving homes avoided attaching combustible fences directly to the house, which helped break potential fire paths. Homes with significant setbacks from surrounding structures, such as across a street (typically 60-80 feet wide), also played a crucial role in reducing structure-to-structure ignition and preventing fires from spreading between neighboring houses.

Did luck seem to be a factor for homes surviving?

No, it looked more like prep and construction in almost all cases.

“Imagine standing in a 100 mph wind with 1000 homes throwing burning embers all over the place. Those can be from homes or forest- your home needs to be able to resist that kind of intense bombardment”

Chief Jeff Hoag

Do you think the kind of wholesale destruction you saw in L.A. could happen here in El Dorado County?

The possibility of urban conflagration exists under the right conditions. We typically do not see the type of wind events we saw in Southern California in El Dorado County. But that does not mean it could not happen. A number of factors could lead to a similar event, but it would be difficult to say when or where because there are so many variables. We have witnessed catastrophic incidents in communities not only from strong wind events but from fuel and terrain driven fires as well. When people prepare their homes and communities work to reduce the available fuels around them it greatly helps to reduce the chance of such events

What happens with the data you and other CAL FIRE folks collected?

CAL FIRE “DINS” will collect data on individual homes that were affected, damaged, or destroyed during the emergency. We use this information to report it to residents on the status of their homes

when the area is evacuated, and then also make it available to researchers, such as at IBHS (Insurance Institute for Business and Home Safety), NIST (National Institute of Standards and Technology), universities, etc. Those researchers rigorously look at what statistically helps homes survive - to inform us all as to what actions really matter and we use that information to update building codes to build safer homes and communities in the future.

What are your thoughts on sprinklers and retardants that so many people think will help?

I didn’t personally see any sprinklers on any homes- either those few still standing or those many destroyed. Water was an issue and adding sprinklers to water use would have made the situation even worse.

I did see retardant on a lot of homes, especially the larger ones. And some of those homes were still standing, though often in amongst other surviving homes that did not have retardant. There are so many variables with retardants- How long ago was it applied? By whom? How well did they apply it? What brand? It would be very hard to capture such data.

Is there anything else you’d like us to know about the fires?

Firefighters worked hard to get people out safely. Some suppression was able to occur, but with so many homes burning at once, there was no way to have an engine at each house. Evacuation was a huge issue. People had a pretty good warning that a major wind/dry event was coming, but didn’t always heed it or prepare to evacuate quickly. My advice: **Be ready, and pay attention!**



Surviving home right next to destroyed home, Palisades

Grizzly Flats homes that survived the Caldor Fire in 2021 - first hand stories locally

Some homes survived the intense Caldor Fire here in El Dorado County back in 2021 as well. The first hand accounts below from two such homes remind us that we here in El Dorado County can make a difference to our home's chance of surviving too!

Mark, Grizzly Flats

Mark, a former fire professional, had worked tirelessly to prepare for such a wildfire for years.

All his fire safety work was a retrofit, and included defensible space beyond what's needed even (no needles/leaves for whole 100 ft, no plants practically other than trees for 100 ft, many trees removed, all trees well limbed up).



He had also hardened their home as best he could research - tackling just one side of the house at a time because of cost, over a period of several years. As a result, their windows had all been changed out to double pane with both panes tempered. They had installed metal gutter guards. All siding of the main house, second garage, and two sheds was fiber cement. The garage door was fully sealed. They had a standing seam steel roof, and doors that were either metal or had metal security screens with fine mesh in front. All vents (foundation, eave) were WUI-approved Vulcan ones which he had installed over the old ones, The house's eaves were typical open

ones (not soffited) but those eaves had no gaps (as confirmed during a visit to his home after the fire).



Well-sealed garage door- embers can't enter.



Eaves: No gaps, and Vulcan vents- both fire and ember resistant. New tempered windows



Gazebo: Fine mesh screening behind lattice, plants removed.

Mark had removed his old deck and replaced it with a concrete patio, except one small section that he changed to Azek deck boards (a very dense composite that is one of the few that are certified as Class "A" by the Ca. Fire Marshal). It didn't burn, but you can see burn marks where embers caused a little damage. He went to Azek because he's seen older Trex melt into a pile, and redwood decks burn.



Small burn mark on Azek deck board, with pen for scale

Because it was trash day, his plastic trash and recycle bins were away from the house down at the road. There was no scrap wood or other debris near his deck or home either, that embers could have ignited (a practice he carefully maintains 3 years later).

He and his wife knew about the fire for a few days, and in the afternoon of August 16, started clearing their ground drainage grates where debris had accumulated, and pulling out bracken fern fronds from the underside of their gazebo where they had grown near their lattice. Even knowing about the fire, when the actual evacuation order came at about 9 PM, it was all they could do to get their 6 cats corralled and into their carriers. They were not able to put their well laid evacuation plans of "what to take" into effect. Mark grabbed no clothes even, though his wife managed to grab some. They left quickly taking both cars.

Setting up in a hotel in Sacramento, they anxiously waited news of their home. In the coming days they learned that though no firefighting at all had been available at his home itself, it and all its outbuildings had survived. Choking up at the memory three years later, Mark recounts that the good news was absolutely overwhelming. "I was a blubbing idiot".

It would be 3 months before they could move back, as water and power eventually were restored. The freezer and refrigerator really stunk- but he was careful and only opened them outside. Both appliances had to be thrown away. While some surviving homes had to be professionally cleaned afterwards, theirs did not- he only had to pressure wash the outside of the buildings because of a little fire residue. For a year he continued to find ash piles everywhere, where flying embers had accumulated but found nothing to burn. He continues to keep meticulous defensible space. Winds are stronger now though with so many trees

gone, and it's harder to blow the leaves away. He struggles to control invasive weeds that are coming in and regrowth of new trees is minimal.



His neighbor to the south, more than 60 feet away, lost their home despite excellent defensible space (but no home hardening) and has since been rebuilt. The neighbor to the west sadly lost theirs also.

Today, Mark notes though that other than losing half the fish in his pond and over 30 tarped cords of firewood from recent clearing he'd done at an adjacent PGE corridor (stored 100 ft out), everything on his property is intact: his home and garage, the shed full of kindling, the gazebo by the pond, and even a shed full of fire hoses that ironically were never touched. He knows that he has all that home hardening work he did to thank, along with his immaculate defensible space. And what's it like living in such a devastated town? "Its still our community. For 30 years we've worked extremely hard getting our home and property exactly the way we want it. We're not going anywhere!"

Sharon's home in Grizzly Flats also

survived. Hers was a well kept manufactured home about 25 years old. Though in her 80's she also keeps stellar defensible space, partially because she likes a clean yard devoid of messy needles and plant debris, raking it regularly. Small shrubs are scattered about in individual pots, with none being close to her many large, mature, well-limbed up pine trees. Like Mark's, her trees are exclusively tall conifers, with no small trees. Younger friends and her church family help her cut up and dispose of any



trees that fall, and also do her regular roof needle removal work- they kindly don't want her up there. This tight knit, friendly community watches out for each other. She returns the favor with delicious batches of cookies freely given.



Her 1 acre or so home yard is as immaculate as Mark's. There is no wood, or debris next to her house, and her deck is kept clear of needles. She does have potted plants on her deck. And although she has not directly tackled home hardening for wildfire safety, many features are



1/8" mesh was behind the vents



Closed in eaves, no gaps

already present. All her windows are double paned, all but one of her vents have fine mesh screening behind the grate (1/8 " and less), her roof is in good repair, and there are no gaps at the open eaves or in her well maintained siding. Some of her eaves are even enclosed with sloping soffits.

Sharon left as soon as the evacuation order was given, staying with friends for 2 1/2 months with just the clothes she was wearing. Returning she found no smoke damage at all, and gives credit to God for protecting her and the houses of neighbors on two sides. Unquestionably her home's features and the clean yards kept by Sharon and those neighbors gave them a big survival boost as well. Her security camera lasted for a bit and showed the fire coming close and sadly destroying one next door neighbor's house, with large amounts of flying embers.



The limbed up trees and lack of understory meant the fire stayed low to the ground at Sharon's, with less intensity, as this security camera photo shows. As embers stormed through, (which don't show as well in daylight) they did not hit anything flammable that would have caused her house to ignite. The siding shown is wood, but starts 6" or more up from the foundation in most places, with noncombustible concrete foundation exposed below.



We can take these messages to heart. We can learn a lot from these stories, which match what Jeff Hoag's damage inspections in L.A. and more formal studies of surviving homes all show - that retrofit home hardening coupled with a clear 5 feet next to a building and good defensible space can greatly increase the odds of a home surviving even an intense wildfire, and even, as in Mark's case and for much of the Palisades, with no firefighting available.

As both Mark and Sharon show, careful maintenance of a yard and home that aligns with known wildfire safety features can pay off (though it's never a guarantee). Today is the best time to start. Tomorrow is the best time to continue. But don't forget to stop and enjoy our wonderful natural environment some days too.



Defensible space spotlight: Creating your clear 0-5 ft zone with plant moves.

Inspired by the stories above to clear your own 0-5 ft zone and greatly increase the odds of your home surviving a wildfire? It can be hard to remove plants you're attached to, but remember that they can be moved instead of destroyed. These residents in the Sandridge area (South County) were even able to successfully move 4 mature camellias. The steps they took are good ones to follow for any plant move.

Winter and early Spring can be particularly good times to move plants!



What the Camellias looked like next to porch. Sadly, being within the 0-5 ft zone, they were a very real fire threat.



Step 1. Camellia bush pruned and ready for relocating. Pruning the top is a good idea since roots are being pruned by the move.



Step 2. Camellia dug out and ready to move, via makeshift "sled". Notice the large root ball extracted!



Step 3. Back-filling the pre-dug hole with native soil, with Camellia bush now at its new home- well away from 0-5 ft zone and not near other plants. Regular watering will be needed for a few years, even if it did not need as much in its old location.

We welcome **Heritage Fire Safe Council**,
El Dorado Hills, the **33rd** FSC in the County!



Fire Safe Council News- Upcoming Events

Assessor Training: April 23 and 24, or May 18 and 19

Did you miss the great 2-day, free training in 2023 to become a volunteer assessor in your Fire Safe Council? Its back! Providing knowledgeable, 1-1/2 hour or so home-specific assessments on both defensible space and home hardening can be an important impetus for residents to do effective wildfire preparation. To sign up for the training, contact [Hugh Council](#). To request a free assessment of your own house/property, contact [Carri Lueck](#). Fire safe councils now receive \$50 for every assessment done.

Placerville Wildfire Safety Fair April 26 10-2 Midtown Mall. Your chance to learn from many wildfire related exhibitors, from fire agencies to nonprofits

Divide Wildfire Expo, April 5 10-4 IOOF Hall, Georgetown. “Preparation” Existing conditions on the Divide, what your fire safe council and agencies are doing, and all the things YOU can do to prepare your home, property, community, and selves.

May 3 10-4 Marshall Grange, Garden Valley. “The Incident” Overview of emergency response, wildland fire scenarios, notification resources, and how evacuations work. Play an evacuation game, with scenarios and role playing.

- Watch for more info in March: gdfsc.org. -

Helpful Links- reduce risk!

[El Dorado Co. Fire Safe Council](#) [Free chipping prog.](#) [Hazard Tree Program](#) . [Senior/Vet/low income program](#) .

[EDC Office of Wildfire Preparedness and Resilience](#) includes insurance updates, info on defensible space inspections

[EDC Sheriff Office of Emergency Services \(OES\)](#) alert and warning information

[Defensible Space](#) [Home hardening](#) [Insurance discounts](#)

[Burning information](#)