

Hi Neighbors and friends,

I have been meaning to follow up on “My Story of the Glass Fire” I sent out to some of you. We have just been too busy like many of you trying to bring things back to normal but that probably will be a few more years... if ever.

Our property called Rancho Mark West (RMW) is a 120 acre timber property that we share with LandPaths, a non-profit that brings kids out to nature. It had a little over 5 million board feet of timber about 50% douglas fir and 50% redwoods. In addition, there were some specimen hardwoods stands, 6 homes, 3 barns, shops, well house, covered water reservoir structure, 3 bridges, plus some minor structures. Since there is a discussion on tree removal and items such as chipping, it is an excellent time to tell you what we observed in real time and the end results.

In other words, our property was like a giant “laboratory” of what happens when a wildland fire occurs.

- Chips: Had about 25 piles (probably about 6 months to one year old material). Some were piled relatively close to trees and caused no damage. The one piled in my yard (top of driveway) and one adjacent to LandPaths’ garden burned (smoldered) for about 3 days. Even when the firefighters returned, they made no attempt to put them out and neither did we since they were not causing any problems. Chips used in the LP garden did burn but not vigorously. On the many miles of our trails that were chipped, we would say very surprisingly about 50% remain even where fire were extensive. Some of these were quite old chips, mainly hardwood with some DF and redwood. LandPath is now in the process of rebuilding these trails and will be re-applying chips. At the LP garden, the manure pile burned (smoldered) for well over a week. This seems to agree with Vinny’s assessment and the flyer Lynn G. sent out. Apparently don’t use pulverized rubber tires.
- We treated all 3 redwood decks, bridges, picnic tables and gazebo floor with a fire retardant called “Fire Kote 100”. We did not treat all the redwood fencing since it would be too costly. The cost is about \$800.00 every 2 years. You will ask did it work? The one deck where the tenant had removed the sprinkler off the deck caught fire in a couple of spots by embers. I think it slowed the fire so we had time to put it out and save the house. The gazebo at the pond was fine. All other locations (except the far west bridge) had sprinklers on them including two bridges for a total of 23 sprinklers going. So we don’t actually know if these other structures would have been protected by the Fire Kote 100 material alone. In my opinion, it definitely helped. The treatment was done about two years ago and then we recently bought more Fire Kote just before the Glass Fire. Best to buy in the winter when it is cheaper. Fire Kote 100: West Coast Fire Shield, (661)588-2183, Bakersfield CA [info@westcosatfireshield.com](mailto:info@westcosatfireshield.com).
- As for wooden fences adjacent to dwellings and structures, we have long had a policy of keeping a buffer of bare dirt about one foot (wider if there is longer dry grass) outside of fences and other structures. We give each tenant a “hula hoe” tool for this purpose. Over the years we have only had two tenants complain about maintaining this 1 feet of bare dirt. We do all the weedwacking as part of our maintenance. As some of you have pointed out, you cannot leave any organic material against any wooden structure. That is like kindling whether it is grass, leaves, chips, etc. We definitely did not see what Rochelle Edy describes, but the embers we saw landing all over us were pieces of wood,

branches, some quite large. As in the Escondido fire where a 2 x 4 by 3 feet long crossed a 10 lane freeway going through a bulletproof pane of glass. The wind controls everything.

- One surprise was wooden half wine barrels filled with store bought soil or compost really burn well. For example, one adjacent to a deck started the deck on fire located about a foot away. They burnt at other rentals and the LandPaths garden. So never place them on a deck or near a wood structure. Also don't have hay bales near any wooden structures.
- The next "big" surprise was how easy that plastic burns. Next to the LandPaths garden, they had two large 5,000 gal. rainwater catchment tanks that once they caught fire, it then ignited everything in the immediate area like our pole barn that covered my 1939 American LaFranc "Calistoga" fire engine, and the corral/garden fencing. The tanks burned so hot and furiously that we couldn't get within 150 ft. of them. Very similarly, LandPaths had a couple of plastic canoes and couple of aluminum canoes adjacent to our storage barn (about 10 feet away). They again easily caught fire. The adjacent aluminum canoes simply melted, and the side of this barn caught fire, but we were able to put it out with a fire hose. We have since found out these tanks were made with recycled plastic. We are definitely rethinking the use of plastic items around our property. Also the plastic green valve boxes all burned.
- For decades, mowing our pastures and former Christmas tree plantation areas have been done by neighbor Tim Tauzer. I believe that was really a "big" item. It definitely saved the 1840's red barn and the gazebo at the pond. The damage to the former Christmas trees and area was minimal. We also weedwacked extensively around our buildings and along St. Helena Road. One really remarkable thing that occurred was that as the fire appeared and the embers (aka fire brands) started to land in our pastures, they caught on fire simultaneously as if someone had spread gasoline on them and with the high winds, it was over in minutes.
- Well pump house was replaced with a 100% steel structure. You may say this is overkill but our reasoning is: 1) All the piping, wiring and electronics cost \$28,000 to replace. The well was ok. 2) It is too far away to be defended; 3) Way too important to lose your water source; 4) LandPaths will not have to think about future maintenance or replacement. The water reservoir is similar.
- Trees is forest: Not at all what we thought would happen. Remember we had many trees planted not just by us, but also previous owners. Plus 42 species just in the former Christmas tree area. The best of the best survival was our valley oaks. We have about 25 specimen trees and all had zero damage. About 150 that we planted over the last 50 years are doing ok. The large ones are doing well. Some that had fire damage are now looking healthy and green. Even the few smaller ones that did burn now are very full, green and robust shoots (and not hundreds like other trees). Just a side note, in No. Sacramento there is 10 acres of mature oaks that was protected by a "little ole lady" adjacent the Farm Bureau office (and Sacramento River) and the diameter of the trunks are equal to our large redwoods. A pretty sight to see. The second best survival (that I thought would have been first) were our redwoods. They basically are intact though many are blackened. The few (about 30 trees) were badly burnt and resprouting on the main stem (epicormic) sprouts will look like bottle brushes (see Wikiup area) and will never produce good wood. Others that burned (probably 300 or 400 are resprouts on the

branches and will again become normal looking redwood trees. Those along the Mark West Creek and far west portion of the property appears to have little damage. The root resprouting on the redwoods is totally incredible. Thousands and thousands of new sprouts. The forest would quickly become an impenetrable jungle. My part solution has been to chemically treat this growth on the healthy trees and manually trim the unneeded sprouts on smaller and dead trees.

- The douglas fir, especially the larger trees would do well in a fire. I have many publications that say exactly that they did not do well at RMW and apparently almost the whole neighborhood. Even some of our specimen trees up to 6 ft. in diameter are gone; little fire damage but the heat destroyed the leaves and needles killing the trees. Lost about 1 million board feet (all douglas fir). Some took a few months to die. Hardwoods — that's another matter. After the fire, it was encouraging to see many coastal live oaks, madrone, black oaks and some manzanita looking pretty good. Then came the "fellers" indiscriminately felling douglas fir on hardwoods. Then came the loggers with their massive equipment. Unfortunately, now we see many of the hardwoods have slowly died. We would think it is partially due to the drought. Again, the resprouting is more than vigorous. We will wait 2 or 3 years and then remove unwanted resprouts. Chemicals such as Garlon IV can kill the stump if used too early when the root system is producing all that sugar for the new regrowth.
- Others: Tan oak did not do well, but vigorous resprouts. The same for manzanita, Toyon, western red cedar and bay. In the former Christmas tree area, sierra redwoods did badly. You would have thought it would have been very fire adaptive. Cedar, pine, sierra redwood, douglas fir do not resprout. Bay does resprout vigorously.
- Other plants: All over the property we have seen new wildflowers such as the redwood (chaparral) lily and are just phenomenal. If you wish to see them, we will provide directions. Zigadenes, trillium, brodiaea (especially wally's basket) were the best; the most and the biggest we have ever seen. This seems to be expected after a fire. It is unfortunate that the calypso borealis (redwood orchid) did not appear for the first time ever. Probably lived in that 2 to 3" duff layer that burned. Also this was a great year for invasive weeds such as various thistles, helleborine orchid, etc. The worst is that "velcro" weed that my Forester said will cover the entire burn area.
- Wildlife: Found 14 deer carcasses in one corner of the property. At first the vultures would not eat, but they finally did. We have seen tracks of small animals such as baby skunks who did not seem to be affected. We have not seen any ticks, but lots of mosquitoes at late dusk. We also miss seeing our foxes. The songbird populations couldn't be better. The surviving bird boxes (about 30) all seems to be used this spring. A good mixture of western bluebirds, tree swallows, wrens, titmouse, chickadees, nuthatches, goldfinches, sparrows, house finches, etc. At the bird feeders, we see about 28 species each day including 3 pairs of blackheaded grosbeaks, 48 band tailed pigeons, etc. We also have many more hummingbirds. I assume it's because feeders such as Ray & Barbara's are gone. Now we have baby birds all over the place. Very entertaining.
- There is one very important item regarding our forest. After extensive thinning, shaded fuel breaks, no fuel the ground and no ladder fuels, why was there still so much damage? After meeting with five licensed foresters, discussions and extensive research, we felt the answer is actually quite simple. The winds now have the ability to push

massive amounts of heat and oxygen through the lower levels. We have other observations, some ongoing, that we will address in the future.

I apologize for being so wordy but hope there are some tidbits of information you can use or compare with your situation.

Jim and Betty Doerksen