Topic 8 Fuel Risks Treated pine

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Justin Leonard

I want to really emphasize the role that treated pine plays in these fires. Treated pine is, as by name implies, made of pine which itself is one of the more highly combustible structural timbers used around houses. The CCA treatment that makes those pines resistant to rot and termites when used against earth, that process makes it even more readily ignitable and more likely to burn to completion than the pine that it started out as.

And unfortunately, when it does burn out, it releases significant amounts of toxic smoke into the air which is a risk to people attempting to move around during the fire. But, well over 70% of the metal salt treatments that actually went into preserving that wood actually remain in the landscape as a green ash that ends up getting washed into the soil and is very bio persistent. So, it has toxic effects well after the fire, and is a particular risk for people attempting to clean up that area or to faucet through the wreckage after it.

Treated pine is simply not a compatible material in a Bushfire Prone Area, and I would suggest not putting it into the landscape, and to progressively phase it out of use on your property if you're in a Bushfire Prone Area.

They presented a particular risk down in Wye river where they were extensively used, and actually burnt so intensely that it actually compromised the support structures which had to be removed, and it was a massive remediation process to even come back from having that treated pine burn out in the event. And it also presented direct risks to the structures.

Chair

And the other thing your comments on treated pine, there were a number of farmers like me up here who had treated pine posts in fences in paddocks that didn't burn, but the fence post did burn from embers that were being blown across them. So, being able to ignite just off the embers even when the grass around them hadn't burned was really significant, but it was one of the more amazing observations that we were making: where did our fences go when a paddock hadn't actually burned?

Chair

What can you do if you've got treated-pine retaining walls, say, within 3m of the house? Is there any way you can mitigate that or you're in trouble?

Justin Leonard

Yeah, you're certainly in trouble at that distance. So, I guess, it's a question of how integral the wall already is, and whether it's really coming up for time for the treated-pine elements to actually be replaced. So, it's a little bit of a cost benefit implication to either replace them with the fibre-reinforced concrete-mock sleeper look, which is expensive but very appropriate in a bushfire, and made to the same sizes as the treated-pine standard sleepers; or you need to think about some intermediate step, where you might actually clad out the treated pine with AC sheet that runs over its surface, across the top and for some distance down the back, until you get well into the soil line.

And it's only once you've completely boxed it out that there's a chance that that treated pine might not get involved in a bushfire, although nothing's ever certain. But don't forget, if it does get involved in a fire, you do have a real toxic-ash local load issue like I highlighted last time. So it's always preferred to do the change-out whenever you find that appropriate.

Justin Leonard

And of course, if you're going to have a spray system, it's absolutely imperative to have a reliable source of stored water, pump, and means for that pump to operate throughout the entire fire event. This is a a tongue-in-cheek picture of a very poorly specified and located tank in that it's made of fiberglass, and for the same reason why the semi-transparent, clear fibreglass skylights burn out prolifically, these fibreglass half-shell water tanks burn out prolifically in fire events as well, and almost certainly do not provide adequate means to store water. And if they do rupture, and this one's highly likely to in a fire event, it can rupture in a way that can break open the house it's adjacent to. And you can actually see the typical combination of a treated-pine edging making a platform that supports this fibreglass water tank. That's enough in itself as a fuel load to ensure that that tank fails in a fairly modest ember attack.

Sheds and supports for water tanks are just as important in consideration. This is another tongue-in-cheek picture to see. We have to be very careful about how we think and design our water tanks and what we put around them, and where the pump and pumping system and supply pipes actually go. It's very easy to say, “I’ve got an enclosure now so I’m going to store x, y, and z in with my pump.” You really have to think about the implications and processes that may unfold in a bushfire, if and when it comes.