

Ohau (the windy place) and Pukaki

During September and October, I was part of the response team managing the Pukaki and Ohau fires. Fires at this time of the year are not uncommon, particularly where you have fuel (vegetation) that contains dead material less than 6mm in diameter. Dead vegetation less than 6mm in diameter dries out after a few hours in the sun, particularly so if the air is dry (relative humidity) as the material is always trying to equalise with the amount of moisture in the air. That's why it's harder to get the fireplace going on a wet day! Examples of vegetation types this applies to are grasses, Manuka, Kanuka and Gorse. In the case of Pukaki and Ohau, the fires started in grass / tussock that had been dried out with frost and had a high percentage of dead/ dry material.

The devastating consequence of the fires was due to the strong and dry winds occurring at the time of ignition. The winds were strong and dry (so the fine vegetation less than 6mm was dry). Wind like a steep slope makes a fire burn faster and more intense. A more intense fire will heat up and ignite fuels that otherwise won't ignite and burn on their own accord – like wilding pines and most other vegetation types. In Nelson the summer South West wind is our strong and dry wind. Further south it is the infamous North Westers.

So, both in the cases of Pukaki and Ohau we had a fast moving intense fire. An intense fire will give off large number of embers and the stronger the wind, the larger and hotter embers are transported further.

Embers landing on houses is the number one cause of why a house ignites and burns down during a vegetation fire. So although many of the houses lost at Pukaki and Ohau didn't have vegetation right up to them (look on google earth) the intense ember showers from the fires ignited fine dry material on, under and around the houses and caused them to burn. It is interesting to note that the log homes, built fully from wood survived pretty well. One of the reasons is a full size log is hard to ignite.

The consequence of the Ohau fire in particular was devastating. It was heart-breaking to see to impact it had on the community there. The fire staff who escorted residents back into the village to look over the damage to their properties rated it as one of the hardest days work they had ever done, but also one of the most humbling due to how the locals and residents rallied and supported each other.

It was good planning rather than good luck as to why there wasn't loss of life in the fires. Ohau residents recognised the landscape risk they lived in and had a warning and evacuation process in place, which worked well and saved lives in the middle of an early October night.

Attached is a note with quotes form the Principal Rural Fire Officer responsible for the Ohau area.

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