

**Submission Number: NND.001.00706**

**Submission Of: Russ Graul**

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What is your submission based on? I am making this submission based on my professional knowledge, qualifications or experience or on behalf of a group or organisation

What is your area of professional expertise?

If you are lodging your submission on behalf of a group or organisation, what is the name of the group or organisation?

### Your Submission

In your experience, what areas of the bushfire emergency response worked well?

Thank you for the opportunity to make some suggestions for rebuilding from the devastation, preparing for the next fire and saving lives. Every summer in Canada huge fires last all summer long and require massive rebuild. They have an efficient program with simple, no brainer procedures to re-establish as quickly as possible.

1. The first and very important task to overcome is the devastating and daunting mess that is left behind. This is where the army steps in. With heavy equipment and workforce, they quickly clean up the homesteads so the people can start to rebuild on a clean slate, with the horrible memories removed.

2. All rebuilds now require a fire bunker or fireproof basement, using concrete walls and ceiling, with exterior access. This is to guarantee that lives are protected.

Architects can easily adapt to fireproof basements and even use more concrete in walls and roof for better protection. Earth covered homes or rooves are very popular. Australian architect, Baldwin O'Bryan, won the Bushfire Building Council of Australia's award for best design Concept. It was an underground home: <https://www.baldwinobryan.com/bush-fire-resistant-houses.html>

3. Water tanks and piping are now buried so that they don't melt or boil in summer, and don't freeze in winter.

4. Hydro lines are often the first to burn and there is no power to pump the hoses for offgrid homes. So all rebuilds now have to install a portable generator or battery backup, placed either in a bunker or fireproof basement.

5. Fireproof dwellings to protect expensive equipment such as tractor or vehicle are also recommended. There are new fireproof materials available including new panels and roofing that are being developed.

In your experience, what areas of the bushfire emergency response didn't work well?

1. No protection for those that got caught in the fire.

2. Plastic water tanks and above ground pipes simply melted and became useless in trying to save buildings.

3. Hydro lines were the first to burn leaving homesteads powerless and inability to use water pumps.

4. Rebuilding with burnable materials, such as wooden hydro poles, wooden structure buildings, thin corrugated steel rooves seem so ridiculous as a fire can return within 5 years and destroy all over again. There are available materials that are fire resistant at competitive costs. The planning departments can implement these changes.

5. Back burning.

In your experience, what needs to change to improve arrangements for preparation, mitigation, response and recovery coordination for national natural disaster arrangements in Australia?

Bush management has not worked. The only people who know how to manage the bush are the aboriginals. They have been doing it successfully for thousands of years. They need to be put in charge of fire management and backburning.

Is there anything else you would like to tell the Royal Commission?

I am presently focusing on fireproof shelters. It is a small part of the overall picture but the most important. If fireproof bunkers were available, no lives would have been lost in the last fire. I have developed a "do it yourself" economical fireproof bunker. I will be happy to further elaborate and even do a presentation if this will assist.

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