

## Paper 1

### INTRODUCTION TO THE BUSHFIRE SOLUTION PAPERS

Black Saturday was a turning point for me. The Premier and the Chief of the CFA said they did their best. The Royal Commission said the leaders could have done better. Yet 173 people died and 2000 houses were destroyed in one afternoon. The two defence weapons of the government failed - (1) the volunteer fire fighters were overwhelmed, despite their heroic efforts and (2) all the destroyed communities and towns had approved municipal fire prevention plans that failed. The publicity build-up was misleading. The night before on the TV news, the Premier proclaimed the state was the best prepared ever to deal with the following day. But it was not. It was an empty performance, a charade of spin and false hope. The state was not prepared. A few weeks later, another bad weather day was forecast. The Premier proclaimed those same empty words again – the state is the best prepared ever.

On Black Saturday morning, I visited a property to prepare a fire plan. It was a partial bush block on the southern boundary of the Mt Disappointment forest. During the afternoon, the owners and I saw the initial white smoke near Kilmore and watched the spot fires cross the Mt Disappointment range. I assessed their property as defendable, explained that the spot fires will come first, that spot fires are good because the burnt out patches can't burn again. They become fire breaks. I showed them how to defend and I coached them through the attack. We saved ourselves, their house, cars and horses. A bit of knowledge and a bit of skill beat the worst ever bushfire, professionally, without a fire brigade. Two closest neighbours also defended, more with desperation than knowledge. Another distant neighbour kept the fire truck and crew and saved his house and helped save others.

Marysville was one of the towns wiped out. "We will never forget you", said the politicians. "We will help you rebuild". But the people who said this have been voted out or moved on. Five years later, Google maps cross referenced with Shire records shows that 23% of the burnt houses have been rebuilt. Marysville and other towns now have to recover alone from a battering they did not want, that they had not been prepared for, and that should have been prevented.

Everybody might have done their best, but they were asleep at the wheel. It was policy failure pure and simple. The state relied on the suppression strategy, using the volunteer fire brigade model that has a very limited design capacity - small accessible fires, or medium paced running fires if truck access and water supply are good or single house ignitions. Black Saturday's savage fires delivered tall flames, fast running flames in inaccessible terrain, leap frog spot fires and multiple simultaneous house ignitions. The state failed to reduce fire intensity in the right places, and yet it expected its unpaid volunteers to work in these unsafe workplaces. This expectation has not changed since the Royal Commission. The fire authorities surely know the limitations of the bushfire brigade model, but they are yet to provide a back up plan for the fires that exceed the brigade model's design capability.

The government missed the warning signs. The six years prior to Black Saturday should have warned the government. There were two large long running fires over 1

million ha plus many other smaller ones. It should have been seen that a bushfire on a bad weather day is always the same. If it escapes the first attack and reinforcement crews, it runs with the wind into unprotected communities downwind. No amount of fire trucks and helicopters can stop it. But the fire authorities' reliance on fire trucks and helicopters grew stronger and the government gave them more money for suppression. The towns remained unprotected from unsubsided flames. The towns remained unprepared for ember attack. The warning signs were ignored. The government allowed the fire authorities to continue to rely on the wrong strategy against bushfires on bad weather days.

Another clue was heavily publicised, but the fire authorities and the government missed the point. During one of the million ha fires, the fire was bearing down on a small settlement, the A1 Mine. For days, bulldozers cleared the outskirts of the town in readiness, and on the day, only one local stayed to defend. The fire brigades refused to defend. He saved a few houses from small spot fires, but more locals would have saved more. This showed that the suppression mentality of the fire brigade model is understandably entrenched because it is based on wet fire fighting and volunteers, who have another life – emergency callout, quick dash, put out the flame, return to work. They do not yet have a defence mentality.

The suppression mentality of the fire authorities was culturally entrenched. They were brought up with wet fire fighting mentality on grassland, where they wait for the fire in the forest to come out. They were blind to the benefits of dry fire fighting method, because they hated the thought of using rakehoes. They could not see, as I was taught in forestry, that dry fire fighting uses fuel management to subdue the flame and keep the danger flame at a distance so that we can deal with spot fires and small flames in safety.

But times have changed. People now live in semi forested areas. The fire brigade / wet fire fighting model works for mild fires. Fire authorities have told government that more fire trucks and helicopters are the answer for severe weather days. And the government paid for them. The government has let the fire agency add another 550 fire trucks since Black Saturday. Yet on Black Saturday, trucks were not a limiting factor. Of the 1268 available, only 468 were turned out.

But you cannot use wet fire fighting against a raging inferno. If you reduce its flame height by prior fuel management you can. If you remove fuel from the path of a running flame, you can stop the flame dead in its tracks. But you need to remove the fuel before the bushfire attack.

The Royal Commission has not changed all that much. The CFA now has over \$1Billion of assets and \$1/2 Billion annual revenue and it still relies on volunteer fire brigade model with its limited capability. Communities are now being “protected” by a stronger evacuation policy aimed at saving lives, yet the sources of the threat are neither identified nor reduced. For example, hundreds of communities have been declared by the CFA to be very high or extreme risk, and the brochures encourage evacuation. There is no program to reduce the perceived risk level and make them safe to live there on bad weather days.

### THE PROBLEM IS STILL WITH US

The fire seasons since Black Saturday have confirmed that nothing has changed, and that another disaster day will occur again. The Fire Commissioner now organises the fire fighters better, but perhaps they have forgotten that their capability peaks at the medium bushfire level. If the bushfire escapes their control on a bad weather day, it still runs freely into unprepared towns.

There is still no accountability expected of fire agencies. The limited data they make public shows that the indicators are heading in the wrong direction. Look at performance in the relatively mild fire seasons since Black Saturday's Royal Commission. (See Paper 4 for more details)

Figure 1 shows solid increases in all indicators - revenue, net equity, paid staff and tanker numbers.

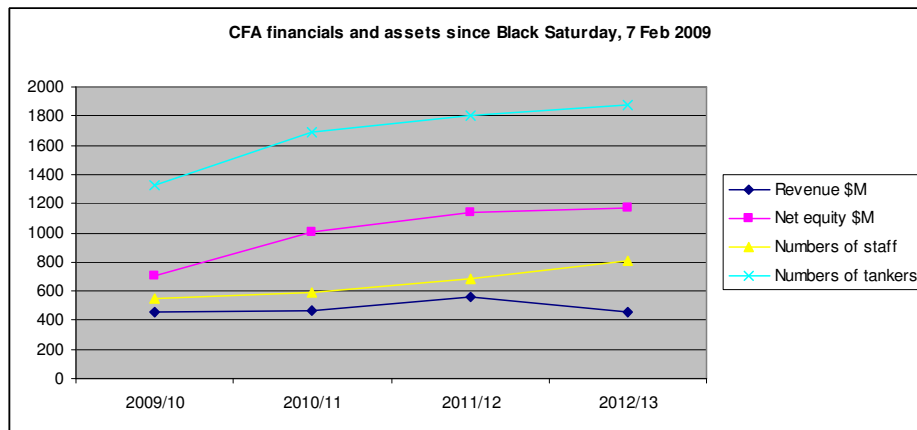


Figure 1 Data from CFA Annual Reports

Figure 2 shows a concerning and disproportionate increase in house loss and area burnt compared to fire season severity

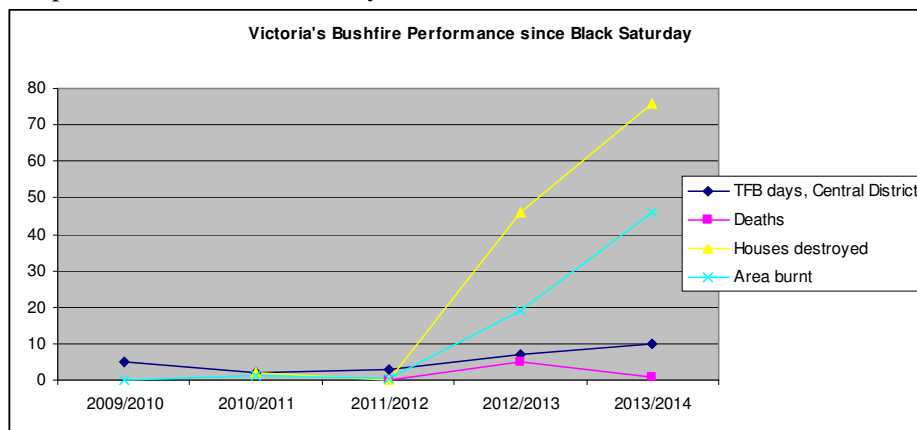


Figure 2 Number of TFB days indicates fire season severity in Central District, Bureau of Meteorology Area burnt (ha) has been divided by 10,000 to fit this scale, eg, area burnt in 2013/14 was 460,000 ha. Area burnt is an indicator of suppression ability, which itself is an indicator of effectiveness of bushfire protection components – prevention, pre-suppression, suppression and fuel bed mitigation.

**Conclusion:** The increase in revenue and assets is having no apparent impact on damage reduction. Because influence of change in fire season severity is minor, the probable reason for soaring damage toll is ineffective government policies and practices that treat the symptoms not the root causes.

## **THESE PAPERS PROPOSE A LASTING AND EMPOWERING SOLUTION**

It is now a good time for people to ask government to overrule the suppression mentality of the fire authorities because it is a known and proven failure in severe bushfires, and to make them accountable to protect each community from another Black Saturday with plans and actions that really work.

- We have to prevent another Black Saturday.
- We have to protect our volunteers by making their work place safer
- We have to bushfire-protect communities by managing fuel bed properly.
- We have to empower the community with knowledge and skill rather than scare them with the fear of God, encouraging them to flee in ignorance.
- We have to prevent bushfires at their source. All flame and embers start and spread on land owned by someone. We have to make them accountable.

These Papers aim to broaden our understanding and discover solutions.

### **THE BUSHFIRE SOLUTION PAPERS**

Paper 1 Introduction to the Bushfire Solution Papers  
Paper 2 Broaden our understanding

#### **The causes of house loss**

Paper 3A House loss – causes and influences  
Paper 3B What is not to blame for house loss

#### **The consequences of policies and some clues**

Paper 4 Bushfire status report Victoria  
Paper 5 Victoria is not protected from running flame  
Paper 6A House loss rate – part 1  
Paper 6B House loss rate - part 2

#### **The planning scheme experiments for new houses**

7A The BMO experiment  
7B The WMO experiment  
7C The AS3959 experiment  
7D Can two wrongs make a right?

#### **Framework for Solution**

Paper 8A Threat and risk  
Paper 8B Misuse of ISO31000 by fire authorities  
Paper 9 Defensive suppression  
Paper 10 The Bushfire Solution