

Submission to Inspector-General for Emergency Management Inquiry into 2019-20 Bushfire Season

Who is this submitter?

This submitter has a Degree in Agricultural Science and a Masters from (what was then) Melbourne University's school of Rural Sociology and Extension in the Faculty of Agriculture and Forest Science. In his late 20s he worked as a Senior Policy Analyst for the Victorian Government and subsequently worked in senior positions in administration, service delivery and technical support. He retired from public service as a senior scientist with the stratospherically optimistic title of "Subject Expert, Climate Change".

How does he "Know Fire"?

In the 1960s I was inside a stationary car at "Pretty Sally Hill" on the old Hume Highway near Wallan when wildfire approached and burnt the road reserve. It was a galvanising experience. My father had turned 14 in January 1939 and was visiting relatives in Emerald on Black Friday. The "Pretty Sally" experience was an opportunity to recall memories of fibro sheets exploding off timber framed houses, and of "Uncle Joe" being dragged unconscious from a burning house after running in to save a pet dog. On the morning of 17 February 1983, a close friend and I used a small SUV to bypass official roadblocks (... as one does...) to inspect the remnants of his house in Cockatoo. We arrived to discover that his house was one of only two standing in Gembrook Road, thanks to good fortune and a neighbour who climbed onto roofs and installed drenching sprinklers.

Conditions there are worth recalling: Silence. An aluminium-alloy Datsun 1600 head resting by the rear brick wall melted but the house had not burnt. The rear yard was littered with charred chook carcasses, smoke emitting from several rootholes in the back yard; the whole township had disappeared. Only bare earth and fine white ash remained between charred eucalyptus trunks. The most difficult experience was traumatised locals wandering randomly among the carnage looking for lost friends who were "probably more deadies".

Much later, I seasonally supported Fire Services with the Department of Natural Resources and Environment, working with operational and planning people from the Country Fire Authority, State Emergency Services, Victoria Police and other agencies. I had several roles in Incident Management Teams and specialised in airbase support, refuelling and reloading fire retardants. A National Emergency Medal was awarded for my contribution to the 2009 Victorian Bushfires.

Introductory comments

When preparing this submission, I found a description of CFA Volunteers by Sir Edward Hamilton Esler Barber in his 1977 report of 1976 bushfires which accurately encapsulates my own experience. He wrote: "It is fair to say at the outset that regional officers in particular and the whole professional body of CFA officers in general, created a very favourable impression. Those officers who gave evidence, or whom the Board met in the course of inspections, without exception, were a particularly fine body of men. [One presumes there were no women in the CFA?] They are well trained, intelligent and dedicated - prepared to work long hours, far beyond normal hours of duty. This dedication is observable throughout the whole CFA structure, including the staff at the headquarters."

He also touched lightly on the corporate fascination with militarism which in my mind is still apposite commentary in relation to quaint and anachronistic use of dress uniforms by professional officers: "One other perhaps minor criticism is that there does appear to be an over emphasis on military style trappings of rank in the professional structure which compares unfavourably with a distinct lack of such things among the volunteer officers ..."

Comments on preparedness for the 2019 campaign

I am concerned by several aspects of government intervention in response to the threat of fire. In a broad sense they all lie within the current Terms of Reference, yet I suspect that too much detail would be wasted in this submission:

- (1) Local Government over-reach: the requirement to prepare a full Bushfire Management Statement (BMS) as a prerequisite for a simple extension to the completion date of an extant Planning Permit;
- (2) Why a BMS should include information that is already (almost exclusively) known to interested authorities yet of microscopic value to an individual – such as a 50-kilometre-radius aerial view showing bushfire and planned burn history?
- (3) A BMS requires assembly of much pre-existing information in a format so rigid with embellishments so prescriptive that ‘only a qualified consultant’ can make them. As a result, individuals can’t complete the task themselves and therefore don’t learn from it. It is difficult to justify in terms of the five human senses, yet a sixth sense suggests it is an expensive imposition by bureaucrats for whom too much intervention is simply not enough. It smacks of a make-work scheme for recently retired local government and CFA planning officers.
- (4) As submitted, the required BMS format precludes information being collated in a database to facilitate generation of public value such as neighbourhood-scale statements or data analysis by policy developers.
- (5) Inflexibility of conditions applied to BAL-rated Building Permits – eg, what need for a mandatory special purpose 10,000 litre water tank when a house is 20 metres from an easily accessible 3,000,000 litre dam that hasn’t been dry for more than 40 years?;
- (6) BAL rated buildings are expensive. Why incur such expense when official advice forsakes buildings (4 times more likely to burn if unattended)? Where is the logic in that?

Major problems with the 2019 campaign

Not just a messaging problem?

Earlier criticisms of the TV campaign for fire-awareness were met with responses that euphemistically acknowledged such feedback as a “mixed messaging” problem. Emergency services leaders and media commentators appeared to be settled by that explanation, which is a conveniently minor disorder that doesn’t invite analysis of deeper issues. Now let’s be clear: that was expediency, pure and simple.

It’s time for the Inspector-General to think further about the corporate culture that generated such confusion in 2019 and to recommend improvements. For a start, consider this:

Post-graduate management training covers classical management theories including the strengths and weaknesses of different management styles. Wars, civil compliance frameworks and emergency management styles tend to align with “command” management structures wherein the uniform is saluted regardless of the content of the character in uniform. A bunch of cultural differences separate such structures from participative management styles and those differences lie beyond the scope of this submission. But a brief summary is relevant here: “Command” structures generate corporate cultures that reward people who don’t question wisdom emanating from higher places. As a result, they run a risk so elegantly exemplified in Hans Christian Andersen’s short tale, “The Emperor’s New Clothes” (1837).

No volume of deeply resonant character voice nor brashness of self-aggrandisement such as “We Know Fire....” can dilute the embarrassment of an organisation that treats folklore and fact as inputs equally fungible.

Consider, for a moment, the early-morning breakfast vision of hundreds of emergency service workers across Victoria individually munching on their Wheaties, day after day, getting ready to get ready. Gothic music plays gently in the background and the family pet sits obsequiously at their feet. Their breakfast is interrupted by yet another, “We Know Fire” announcement: people die because bushfires generate radiant heat of 1,000 degrees Celsius, 300 metres from the flames. [Yes, we all heard that right through the season!]

Some are polishing the epaulettes on their triple-XL uniforms and contemplating ways to further advance themselves by turning three performance indicators into five. Some are exercising the elocution of key words so vital to socio-cultural bonding within the service (“assets”, “resources”, “personnel”, comradeship/camaraderie: “comrard-ree”; etc). Others with more generous minds are wondering why paid actors and character voices are conjuring scenes of alarm and disaster, when the organisation employs world-class scientists and experts who could more authentically communicate advice on life and death decisions in times of danger and uncertainty.

A brief interlude in images:



“One thousand degrees Celsius at 300 metres from the fire”?

Who would have guessed?

Also consider the extreme improbability that none has the wit to realise that aluminium melts from 600 to 650 degrees; road signs are aluminium, fire trucks use aluminium mudguards, cabinets, bull-bars and heat shields, yet their organisation is behaving Victorians to believe that they will die from “1000 degrees Celsius of radiant heat, 300 metres from the fire”. Think of all the fire trucks, road signs, aircraft, etc, that unfortunately fell into into the 300-metre halo of destruction in 2019 and should have melted but somehow “magicked” their way beyond the laws of physics! Is this a joke? I don’t think so.

Now, Inspector-General, concentrate on this: It is likely that average people in the organisation in 2019 were bright enough to clock-on but were unwilling or unable to change the organisation to communicate responsibly and respectfully with ordinary Victorians.

This is not a “messaging problem”. It exemplifies serious deficiencies in corporate culture that the Inspector-General should investigate. The contrasting public engagement of the COVID-19 emergency and 2019 Victorian fire season could not be greater. Respect for science and disrespect for folklore are of essence to that contrast.

News services excel at breaking substance into froth and bubble for ghoulish entertainment. Science-based campaigns always struggle to communicate without adding emotional content. The key to success is to connect accurate science with emotional content to generate useful practical advice. The amount of emotion is a matter for judgement and the accuracy of science is of paramount importance. The 2019 campaign used improbable nonsense when it could have used evidence based, well-illustrated science. For example (BAL-40), 40 kilowatts of heat per square metre blisters human skin at a distance of one metre, in 10 seconds.

In 2019, CFA corporate values included:

- We are truthful, open and honest
- We speak up if we see something wrong
- We learn from each other and our community
- We act with integrity at all times

And yet, such fine aspirations were over-ridden by something greater within the organisation. Perhaps the imperative to normality, which plays an important part in socio-cultural bonding, also drove an imperative to self-censorship or worse (eg censorship by hierarchy) within emergency services organisations. Evidence was suppressed or ignored, and the public was assailed by folklore, regardless of how disrespectful of public intelligence or damaging to corporate credibility. Opportunities to communicate more useful information were squandered.

Chiefs of staff should be asked why they should not take shame from the structural deficiencies exposed by the 2019 propaganda campaign. We should all expect better than that.

1. Fooled by the inverse square law?

There are no easy answers to bushfire management, and I have never been comfortable with the emphasis placed on evacuation. In the early 1980s while working at Melbourne University, I had morning tea daily with post-graduate researchers seeking explanations for the loss of domestic structures to wildfire. I think their funding came in response to the ‘Black Saturday’ and associated wildfires in February 1977 which were predominately grass fires. While I did not read their final report, I vividly recall their comments that the chances of saving a structure were four or five times greater if people were present and they took cover as a fire front passed, and then used rudimentary equipment to extinguish flames after the front passed.

Of course, such success can't be universally foreshadowed. Fuel loads and potential roadblocks in many circumstances make evacuation the best response to a bushfire threat. But it's time to respect the intelligence of individuals and to offer constructive advice other than simply telling people to beat a retreat. Of course, such a nuanced approach can only be possible if the services themselves get better at separating fact from folklore.

We are currently renovating an old timber house in a BAL-40 site close to Bendigo. The additional cost to meet mandatory BAL-40 construction standards for eaves and roof is over five thousand dollars.

The cost of BAL-40 certified windows and doors is more than one hundred thousand dollars. New fire-resistant insulating cladding is in the order of forty thousand dollars. These are not prospective or exaggerated values: they are real. We are also investing in discretionary measures to improve fire resistance. When faced with wildfire, we expect to be here and to defend the house.

For some time about 15 years ago, the CFA advised citizens to "prepare well, stay and defend, or leave early". Then someone twigged that most people who die in wildfires do so within 200 metres of their home. The corollary, *ipso facto*, was that people are safer when they're away from home. Similar sentiments persist today. Simple, isn't it? Well no; simplistic, perhaps.

Hasn't anybody checked the figures after applying the inverse square law? I suspect that official policy is still fooled by basic ignorance of that mathematical law taught to students in years 10 and 11 physics, chemistry, biology and maths.

In summary, if one assumes that people move randomly to and from a single point of residence (a reasonable assumption for the purposes of this exercise), then the probability of them dying at any point in their travels is inversely proportional to the square of their distance from the centre. So obviously people are most likely to die when they're close to home! But that doesn't mean that an individual's chance of death necessarily increases if they stay home: it only means that people are most likely to be found close to the centre of their 'territory' after dying in a bushfire.

Of course, hiding inside a tinder box is not very clever and people should be dissuaded from competing for the annual [Sir Charles] Darwin award. But, Inspector-General, please ask yourself which territory a resident is most likely to know best and how they will act when wildfire arrives. The 'beat a retreat or be burnt' message is much too blunt.

To summarise: it is time to review some basic assumptions and it's time to respect the intelligence of people by providing more nuanced and more accurate advice. The current communication settings could be characterised as, "be alarmed but not alert". Science should not be validated by political imprimatur. Our trusted emergency services should, themselves, "know fire" with more accuracy.

Inspector-General, I hope these comments are helpful and I wish you every success with your Inquiry.

Yours sincerely

A handwritten signature in black ink, appearing to read "Steve Lottkowitz", with a horizontal line underneath.

Steve Lottkowitz