

Bushfire management in Australian forests – confronting a changing environment

by Roger Underwood

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There is an old saying that one of the greatest of human failings is the inability to learn from the mistakes of others. One example is that of my 2-year old grandson who, despite being warned, could not resist testing the heat of the stove, and got his fingers burned. I have noted an identical situation in the attempts at bushfire management by Australia's new generation of forest managers.

Yet while the new managers have suffered a lot of burned fingers over the last ten years, strangely they do not seem to be learning from it. There are three simple lessons which could be learned: First, the current approach to bushfire management is not working. Second, the current approach has been tried before and it didn't work then either. And third, there are still a lot of people around who know all this, from whose first-hand experience much could be learned.

Another well-known aphorism tells us that those who do not study history are condemned to repeat it.

Sadly, when it comes to bushfire management in Australia, I see history repeating itself continuously, and even worse, because of recent changes in our forest management environment, the outlook is for more of the same. And its not just fingers getting burned. Every year over the last ten, the nation's forests, farmlands and even suburbs have been ravaged by large, high intensity fires. The damage from these fires, the wastage, the loss of resources and the economic and ecological costs have been astronomical. There have also been great but immeasurable psychological impacts on the people in the bush who have suffered from the fires, or who have been forced to turn out, over and over again, to fight them.

The sorriest aspect is that it is all so needless. It is not as if we Australians are brand new settlers in this country, still feeling our way and guided by imported European philosophies, immature science, inexperience of the bush or impractical ideologies.

Or are we? Consider the response from officialdom to the 2003, 2004, 2005, 2006 and 2007 fires. Our State governments and agencies are in denial, as witnessed by that monumental whitewash known as the Esplin Report, and by the refusal of State Premiers to adopt the excellent motion put to them by Senator Abetz recently. Consider the recent public statement of the Chief Officer of the NSW Rural Fire Service: he claimed there was no serious bushfire problem in Australia, it is all a beat-up by the media. Consider the way the ACT government blamed the 2003 fires on God, while the WA government blamed the disastrous fire at Mundaring Weir on an arsonist.

Meanwhile, the Emergency Services lobby is renewing its calls for ever more expensive and sophisticated equipment and suppression forces, the environmentalists are blaming Global Warming, while the intellectual leadership and credibility of our academics continues to decline. The darling of the greens, academic Robert Whelan, for example has publicly argued against fuel reduction burning, claiming that it does more damage than massive wildfires, while influential Canberra ecologist Richard Norris claims that the answer to the bushfire problem is simply to take people away from areas where bushfires occur, or make them live in fireproof structures such as concrete bunkers. How he believes that this policy could be achieved in regional Victoria, southwestern WA, the urban fringe of Sydney, or in Tasmania, he does not explain.

If all of these people were less driven by politics or ideology, or if they actually knew something about bushfires or were required to design and implement a bushfire management system and then be accountable

for the results, or even if they were prepared to make a serious study of the history of bushfire management in this country, they might have a very different view.

The fact is that *large high intensity bushfires result from failed land management*; like a disease epidemic, they are incubated over several years during which preventative medicine could have been applied, but was not.

We are not brand new settlers on this continent. Australian land managers, land owners, foresters and rural workers have been confronting the threat of bushfires for over 200 years, and wildland fire has been the subject of very high quality scientific research over the last 50.

This experience and science have revealed that there are three basic alternative approaches to bushfire management: you can let fires burn, you can try to suppress them, or you can try to replace “feral” fires with controlled fires. All of these approaches are applicable and appropriate singly or in combination in different parts of the country. The trick is to get the most effective mixture for a particular place at a particular time.

To look at each of these briefly:

- In the *Let-burn approach* nature is assumed to know best, and fires are left to burn to their heart’s content, to go out eventually if they run into last year’s fire, or to be extinguished at the onset of the rainy season or tackled at the edge of the bush if human assets are threatened. By force of circumstances, the let-burn approach is appropriate for bushfires in the remote lands of central Australia and most of the rangelands where access is poor and there are few people or threatened assets. The trouble is that this approach is now advocated by environmentalists for application to our high rainfall forest country. Those who advocate this, it should be noted, mostly live well inside suburbia, are not threatened by fires, do not have to fight them and cannot be held legally accountable for the outcome of such a policy. No government can afford to adopt the let-burn approach for the more populous forest and agricultural regions, at least not officially, although the Victorian government came very close to it a few months ago when it withdrew firefighters from the bush to protect towns.

The two biggest problems with the let-burn approach are (i) fires burning out of heavy forest country can be unstoppable when they reach the edge of the bush; and (ii) under Common Law a token effort must always be made by the land owner or manager to suppress wildfires, because not to do so lays them open to legal action.

- The second alternative approach is the *All-out Suppression approach*. This requires fires to be attacked immediately after detection, using the resources of an emergency service, or “fire brigade” set up for the purpose. This approach originated in the cities of Europe in the middle ages, and was exemplified by the drama of the ringing alarm bells, galloping horse-drawn fire engines and magnificently uniformed and helmeted firefighters. The current image is equally theatrical, with water bombers and helitaks sweeping the smoky skies, convoys of tankers filing along country roads, and brilliantly uniformed Fire Chiefs being interviewed on television by breathless reporters.

The all-out suppression approach is appropriate in cities, where there are permanent firefighters on standby 24 hours a day who are able to get to any fire within minutes. In earlier days in rural Australia the suppression approach was implemented by volunteer brigades of farmers and bushworkers, and was largely successful in developed farmland and country towns.

However, in rural Australia these days the networks of small self-funded local bushfire brigades have morphed into highly sophisticated paramilitary organisations such as the CFA and the NSW RFS, complete with their decision-making headquarters in the city and their armies and airforces. Increasingly they are being expected to fight full-scale forest fires. This is partly because of the

loss of experienced full time agency firefighters and also the loss of firefighters from the former hardwood timber industry who were once the frontline troops in any forest fire.

But the main reason is that the all-out Suppression Approach is fast becoming the dominant philosophy in most of Australia, especially NSW and Victoria.

The amazing thing about this is that it flies in the face of practical experience and bushfire science. This approach *does not and cannot* work in Australian eucalypt forests unless it is supplemented by other measures (discussed below). Fires on hot windy summer days in long unburnt forests simply cannot be put out by humans, no matter how many, how courageous and how hard they work and how good their technology. Even under relatively mild conditions, the intensity of fires burning in fuels over about 10 tonnes per hectare is simply too great to allow them to be attacked successfully. The 2007 Victorian fires demonstrated that the entire firefighting resources of Australia, plus international assistance from NZ, Canada and the USA, were inadequate.

This is a situation which was once well understood by Australian forest managers. Which is why in the 1950s there was a general move to adopt a third approach – the substitution of controlled mild fire for uncontrolled high intensity wildfire.

- I call this the *green burning approach*. It recognises two simple facts: Firstly, that bushfires cannot be prevented – even if we eliminated all mankind from the forest, there would still be lightning. And second, periodic mild, patchy fires prevent the build-up of heavy fuels, so that when a fire does start it is easier and safer to suppress, does less damage, and costs less. A regime of green burning also produces a healthier and more vigorous forest and is better for biodiversity. This approach was applied rigorously in many Australian forests for nearly 30 years, with tremendous success. Unfortunately since about the 1980s green burning has been under constant attack from environmentalists and academics. As a result, in Victoria and New South Wales, especially in forests which are now national parks, almost no effective prescribed burning is done. Even in WA, where green burning was once championed, the area burnt each year has now fallen well below that required to ensure an effective fire management system. Here the annual burning target is 8% of the forest – simple arithmetic allows you to calculate that this equates to a turn-around time of 12 years, which in the jarrah forest at least is nearly twice the recommended burning rotation length if summer wildfires are to be manageable. The anti-burners have achieved this irresponsible situation not through special expertise in fire prevention or suppression, not through being able to put in place an alternative and equally effective system, but simply by gaining control of government policy and by the capture of the new forest management agencies.

There are two other problems, which I will mention only briefly.....

Opposition to prescribed burning has been accompanied by two further problems in the forest: a decline in the standard of road and fire trail maintenance - in some cases due to lack of funds, in other cases as a result of deliberate policy - and fewer permanent agency staff in the bush. The first of these factors has meant it is harder for firefighters to get to fires; the second has meant an increasing reliance on volunteers and on part-time and less experienced firefighters. In WA, as in other States, the government has newly established a large Wilderness Area in the forest, and within this area they are busy closing down roads in the full knowledge that this will make firefighting more difficult and dangerous.

What Can be Done?

My experience is revealing. I am the Chairman of a small independent group in WA called the Bushfire Front, and for nearly 5 years we have tried to influence government policy by logic, science and the weight of our >400 years cumulative wisdom and practical experience in all aspects of bushfire management. We have had one meeting with the Premier and numerous meetings with many Ministers and senior agency staff and have made dozens of submissions and presentations. The result is that we have moved from

getting the cold shoulder (where we were simply ignored) to getting the warm shoulder (where they agree with us, but do nothing). The government feels very comfortable about this response because we pack no political punch. Ministers and agency bosses know where the real political clout lies. This is with the green pressure groups who control voting preferences and thus are able to determine government forestry policy.

In fact the green influence extends beyond policy to management plans and to bureaucratic regulation, including the imposition of ludicrous constraints on the burning program. No forester can undertake a prescribed burn in WA these days without filling in 73-page document, running a public consultation program and then obtaining the signatures and approval of nine separate senior departmental mandarins, most of whom know nothing about fire. Finally, completed burns are subjected to an environmental audit which focuses on bureaucratic trivia, not fire control effectiveness. All of this, it seems to us, is deliberately designed to discourage burning and to make it harder for field staff to accomplish an effective fuel reduction program.

One of the greatest ironies of them all is that the department's own ecological research has shown conclusively that biodiversity and forest conservation are enhanced by frequent mild fires, while large fierce fires cause enormous forest and environmental damage. A single hot wildfire near Mundaring Weir two years ago was found to have killed *ten million* mature jarrah, marri and wandoo trees. Yet this produced no change in the department's fire management approach.

The most the Bushfire Front can say we have achieved is that we are well positioned to produce evidence of our warnings and the way these have been ignored to the inevitable Royal Commission after the inevitable bushfire disaster. This will give us no satisfaction.

Similarly we have had almost no success in motivating the media over the issue. We have found that journalists are interested in bushfires only as sensational disasters and theatrical drama; they find issues like damage mitigation and bushfire preparedness boring and un-newsworthy.

I am well aware that our forest managers today must operate in a greatly changed environment to that in which I worked 15 years ago. Here I am not referring to the hysteria about global warming. The big change is that *bushfire management has moved from the business of land management to the business of politics*. In the business of politics, history, science, practical experience, wisdom and logic seem to count for nothing.

In my opinion, until the voice of the bush is heard more loudly than the voice of the urban greens and impractical academics this situation will not change. We will continue to be unable to expose the policy vacuum, the flawed ideology, the lack of leadership and incompetent governance which characterise the current approach to bushfire management in this country.

There is one bright light on the horizon: this is the possibility that the Federal Government will become more involved, and will institute a new system in which the States are financially penalised for failed bushfire policies and management, rather than being rewarded as at present. I welcome the leadership in this area being shown by Eric Abetz, Garry Nairn, Stewart McArthur and one or two others in the Federal parliament, and commend to them the simple template for Best Practice in Bushfire Management which we have developed.

In conclusion

Australia does not need more helitaks, more water bombers, more infra-red gizmos or more overseas firefighters. What is needed is a fundamental change in bushfire philosophy and governance. Forest managing agencies and fire services must shift their focus from suppressing running fires to the critical long-term work of pre-emptive and responsible land management. Their job is to make the task of the firefighter easier and safer, not harder and more dangerous. Arson, Acts of God and possible Global

Warming can all be anticipated and steps can be taken to minimise their impact. We know what to do and how to do it.

Finally, I would like to return to my theme about the lessons from history. At a conference of forestry officers in Perth in 1923, the Conservator Stephen Kessell was laying down his philosophy to departmental staff. "Preventing large high intensity forest fires," he said "is the most fundamental requirement for forest conservation in Australia". Kessell recognised that without effective bushfire management, no other management outcomes can be achieved.

It's that simple. Sadly, 80 years later, many of the people who today are responsible for conserving Australia's forests have not yet grasped this fact. They fiddle, while Australia burns. And they will continue to do so until influential rural groups like TCA take up the cudgels on behalf of their forests and their communities, and force a new direction in philosophy and land management practices.

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