

Bushfires in Australia – Two Choices

**A submission to The Royal Commission into
National Natural Disaster Arrangements**

**Presented by Viv Forbes
On Behalf of The Saltbush Club**

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The Landscape and wildlife of Australia was shaped and then maintained by frequent mild burning for at least 40,000 years. This reality must be recognised and it dictates that there are only two futures for Australia:

1. A healthy safe landscape that maintains sustainable vegetation, wildlife and people. This requires that we re-establish the successful fire regimes of the past.

OR

2. A dangerous and destructive landscape with too many people cowering in suburban and rural enclaves surrounded by a tinderbox of pest-ridden weeds, scrub and litter – a threat to trees, wildlife and property. This is today's fire regime in Eastern Australia.

Our submission focusses on Bushfires.

It covers the following subjects within the terms of reference listed for the National Royal Commission. The subjects are covered in a logical order but not necessarily in the order listed in the terms of reference:

- a. Responsibilities of Commonwealth, States, Local Governments and Landowners.***
- b. The need to adapt to changing climatic conditions.***
- c. Increased power and role for the Federal Government***
- d. Hazard reduction burning***
- e. Wildlife protection in Bushfires***
- f. Public Infrastructure***
- g. Lessons from Indigenous use of Fire***

We have read articles and books by the Bushfire Front, Mr Roger Underwood and Mr Vic Jurskis. We recommend the Commission takes careful note of whatever submissions they make to this enquiry.

The Power of the Torch – Lessons from Aboriginal Australia

“Fire, grass, kangaroos and human inhabitants seem all dependent on each other for existence in Australia; for any one of these being wanting, the others could no longer continue.”

Thomas Mitchell, explorer, 1848.

“There can be few if any races who for so long were able to practice the delights of incendiarism.”

Geoffrey Blainey “Triumph of the Nomads – A History of Ancient Australia.” Macmillan 1975.

The ability to light fires was the most powerful tool that early humans brought to Australia, some 40,000 years ago.

The aboriginal firestick created the beautiful, diverse, healthy and safe landscape of open forests and grasslands that greeted the First Fleet. Many early settlers and explorers commented on it.

Fires lit by aboriginal men and women were used to create and fertilise fresh new grass for the grazing animals that they hunted, to trap and roast grass-dwelling reptiles and rodents, to fight enemies, to send smoke signals, to fell dead trees for camp fires, to ward off frosts and biting insects, for sanitation and for religious and cultural ceremonies. They created and maintained grasslands and open forests and, over the centuries, gradually extinguished all flora and fauna unable to cope with frequent fires.

Early white explorers and settlers recorded the smoke and the blackened tree trunks. They admired the extensive grasslands, either treeless or with well-spaced trees, and no tangled undergrowth of dead grass, brambles, branches and weeds.

John Gilbert the explorer looked on the Valley of Lagoons in the Burdekin River Valley, North Queensland on 4th May 1845. He wrote in his diary:

“From a hill near our camp, we can see to eastward a broad extent of valley with numerous fine lakes. Smoke from natives’ fires is seen in all directions around us.”

Ludwig Leichhardt made a similar note on the same day.

Recorded by Alec Chisholm (1941) in his book:

“Strange New World – the adventures of John Gilbert and Ludwig Leichhardt.”

Watkin Tench (1793) wrote:

“Their method of procuring fire is this:

they take a reed, and shave one side of the surface flat; in this they make a small incision to reach the pith, and introducing a stick, purposely blunted at the end, into it, turn it round between the hands (as chocolate is milled) as swiftly as possible, until flame be produced. As this operation is not only laborious, but the effect tedious, they frequently relieve each other of the exercise. And to avoid being often reduced to the necessity of putting it in practice, they always, if possible, carry a lighted stick with them, whether in their canoes, or moving from place to place on land.”

Reported in Collins, D. 1798. An Account of the English Colony in New South Wales, Vol. 1 With Remarks On The Dispositions, Customs, Manners Etc of The Native Inhabitants Of That Country.

These reference and others are reported in:

Jurskis, V. 2015 Firestick Ecology: “Fairdinkum Science in Plain English”

Connor Court Pty Ltd.

Selected members of the tribe were charged with carrying a fire stick and keeping it alight. In really cold weather several members may have each carried a fire stick for warmth. When the stick was in danger of going out, the carrier would usually light a tussock of dry grass or leaves and use that flame to rejuvenate the fire stick (or light a new one). As they moved on, they left a line of small fires spreading behind them. They have been observed trying to control the movement of fires but **never tried to extinguish them.**

Early explorers who ventured inland were amazed to find extensive grasslands and open woodland. Their reports attracted settlers to these grassy open forests and treeless plains with mobs of cattle and sheep.

Despite modern folk-lore tales about aboriginal fire management skills, anyone reading diaries and reports from early explorers such as Abel Tasman (1642), Captain Cook (1770) and Lasseter soon learned that aboriginals lit fires at any time, for many reasons, and NEVER tried to put them out. If threatened by fires lit by enemies, the most frequent response was to light their own protective fires (now called back-burning). They also used fire to trap or incinerate animals. Fire lighting was deliberate, and sometimes governed by rules related to tribal lands, but there was no central plan. There were no fire-fighters, no 4WD tankers, no water bombers, no dozers, and no attempt to suppress or mop-up bushfires. But aboriginal fire “management” worked.

Because of the high frequency of small fires, fire intensity was low and fires could be lit safely even on hot dry windy summer days. Any fire lit would soon run into country burnt one or two years earlier and then would run out of fuel and self-extinguish. This is now given the catchy name of “patchwork” or “mosaic” burning”, as if the patterns were intentional and planned rather than a product of many frequent small fires.

The early squatters and pastoralists quickly learned about the dangers and benefits of fires, and they learned to better manage fire to protect their assets, grasslands and grazing animals. The settlers had more to lose than the nomads. Graziers need to protect their herds and flocks, homesteads, hay stacks, yards, fences and neighbours, as well as maintaining the grasslands by killing woody weeds and encouraging new grass.

So their fire management was more refined. They soon learned to pick the right season, day, time-of-day, place, wind and weather before lighting a fire. And if threatened by a neighbour's escaping fire or a lightning-strike fire, back-burning from roads and tracks was their preferred way to protect themselves (often the only way).

The Total Failure of Government Bushfire Policy

Over most of Australia, decentralised practical fire management by aboriginals and settlers has been replaced by centralised control with a green agenda that has created the wildfire menace.

Firstly, governments created hundreds of National Parks, where fire sticks, matches, graziers and foresters were locked out and access roads and fire tracks were abandoned or padlocked. Then, spurred on by climate warriors and misguided tree-lovers, they slapped a patchwork of vegetation "protection" orders on many private landowners. And they made it very difficult for private or local bodies to get permits-to-burn.

Next, urban nature-lovers built houses right beside these parks and prevented, hampered or delayed fuel-reduction burning. They also encouraged the bush to advance to their boundaries and planted flammable native trees in their yards.

Finally, open forests and grasslands were invaded by eucalypt regrowth, woody weeds, lantana, tangled undergrowth, dry grass and dead logs, leaves, twigs, bark and litter - all perfect fuel for a wild-fire holocaust, especially in the wake of a drought.

According to an article in The Weekend Australian 11/1/2020, page 13, CSIRO bushfire expert David Packman, speaking on Sky News, said that fuel loads for fires are 10 times greater than before European settlement and that there is urgent need to reduce fuel loads on the bush floor through control burns (also called "prescribed burning" – or "back-burning" when done in an emergency.)

These widespread tinder-boxes of forest fuel (continuous in 3 dimensions) become magnets for arsonists, and occasionally even disgruntled neighbours, or are lit by wind-blown embers or by dry lightning. With high winds and heavy dry fuel any ignition will explode into firestorms that can race through the tree tops of oil-rich eucalypt forests and burning embers will race far ahead of the main fire. Firebreaks, fire engines, helicopters and water bombers won't stop them. A change in the weather may allow a respite but the danger will remain until all is burnt.



Wildfire in the Litter

Acknowledgement : Pixabay.com

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Into this maelstrom they send the brave volunteer fireys. With insufficient tracks, insufficient nearby water, uncleared tracks, insufficient fuel reduction burning and bush right up to towns and houses, bushfire disasters (including the deaths of firefighters) are guaranteed.

Central management/control of bushfire policy and fire-fighting has failed completely in all Eastern States.

(Western Australia learned valuable but expensive lessons from the terrible bushfires in 1961. See: *“Tempered by Fire”*, a book published by the Bushfire Front, edited by Roger Underwood, 2011: <https://www.bushfirefront.org.au/resources-2/historical-accounts/1961-2/>)

But across all Eastern States, bushfire policy and management proved to be a disastrous failure. Too often it is illegal to burn often enough or far enough to maintain a healthy safe landscape. Too often the people in charge do not understand bushfire history and science, they were too influenced by Green ideology and they lack practical bushfire experience. State and Local governments have gone further in creating bushfire disasters by preventing landowners from taking steps to protect their own assets from bushfire damage.

Here is a poignant landowner’s story: <https://saltbushclub.com/2019/01/23/eden-destroyed/>

Government authorities should provide information but not control. Control should be returned to landowners, home-owners, foresters and experienced local fire officers.

We can never return to the successful aboriginal policy of burning almost anything, at any time, for any reason. But locals with fire knowledge, experience and skin in the game could and should be allowed to make a huge difference. Residents must be able to demand fuel load reduction on government land near their properties and towns, and must be able to carry it out if authorities refuse to do so. Bushfire fuel can be burnt, slashed, raked, composted, heaped, buried or grazed so long as it is no longer capable of feeding runaway bushfires.

Insurance companies should encourage good bushfire management by reflecting fire risk and fire mitigation in premiums.

No aboriginals and few early settlers used water to fight fires. There were no water bombers, no fire trucks, and often not even hand-spray back packs. Graziers used fire to fight fire either by removing fuels by cool season burning or by back-burning from station tracks. Their wives and kids defended the homestead with garden hoses, or beat the flames to death with wet hessian bags and green branches.

Aboriginals simply left fires burn and kept out of the way, retreating to recently burnt bush or into creeks or water holes.

Water is undoubtedly useful to protect homes and towns, to extinguish burning buildings, to stop grass fires, to mop up a fire edge and to stop the back burn from escaping in the wrong direction. But trying to extinguish raging bushfires and forest wild-fires with water alone is always a waste of time, energy, money and water. The expensive and showy water bombers look great on nightly TV but are totally unable to suppress or even reduce the run of a high-intensity forest fire in high winds.

We cannot go back to aboriginal fire management but we can re-learn the lessons learnt by the pioneer graziers. Mainly we must re-learn two ancient skills - remove the fuel load regularly, everywhere and use fire to fight fire. We know those methods work.

There are other lessons that need to be learned. For example:

- Big fires need a lot of fuel, so regular cool-season burn-offs are essential.
- If you own the fuel, you own the fire.
- If you haven't managed the fuel, you will not be able to manage the fire.
- If your fire escapes and causes damage, you are responsible and should be held accountable.

It is time (in fact overdue) that the “owners” of national parks and state forests accepted their responsibility for these recurring disasters. Until they do, the bushfire disasters of 2019/20 will recur every few years, and with increasing costs as population and the value of fire-prone assets increases.

Wildlife Protection

The vast increase in the area of parks, protected vegetation and wilderness areas where foresters, fire-wood gleaners, graziers and hunters (black and white) are locked out has changed the landscape and the wildlife. And the development of water resources by landowners has allowed more wildlife to survive droughts. There are normally far more wild pigs, wild cats, wild dogs, wild camels, wild horses, scrub wallabies and possums than in pre-European days when cool season burning, hunters and lack of water kept these populations in check.

Naturally, whenever there is a massive wildfire, most wildlife (and much livestock) in those areas perish. This is one of the greatest costs associated with un-managed wildfires. To conserve our wildlife and restore our disappearing open forests, we must have much more regular cool-season patchwork burning, not massive wildfires. All the land burnt in the recent bushfires has been de-risked and this land should be now maintained in a safe state where vegetation and wildlife can recover. **This is a rare opportunity that should not be wasted.**

Weather and Bushfires

By far the most important environmental factor in bushfire risk is fuel – its load and dryness. A heavy load of dry fuel is a firestorm waiting for ignition - an ominous ever-present risk to all neighbours and wildlife.

Weather can make bushfires worse but is not the primary cause. High temperatures may make ignition more likely. And hot dry winds combined with heavy fuel load are a lethal combination that almost guarantees a firestorm. The vital danger is the heavy fuel load, not the weather. Here is a bit of history we can learn from:

“On 10th and 11th February 1791, during the Settlement Drought, Aboriginal fires in woodlands on sandstone country northwest of Rose Hill (Parramatta) were burning under extreme temperatures (> 43° C) and scorching north-westerly winds. In what is now Parramatta Park, parrots and flying foxes were dropping dead from the trees. But the European settlement was not affected by the fires. On another blow-up day, 5th December 1792, a grass fire at Sydney burnt one house and several gardens and fences before being controlled.”

On the same day Collins wrote:

“At Parramatta and Toongabbe also the heat was extreme; the country there too was everywhere in flames. Mr. Arndell was a great sufferer by it. The fire had spread to his farm; but by the efforts of his own people and the neighbouring settlers it was got under control, and its progress supposed to be effectually checked, when an unlucky spark from a tree, which had been on fire to the topmost branch, flying upon the thatch of the hut where his people lived, it blazed out; the hut with all the outbuildings, and thirty bushels of wheat, just got into a stack, were in a few minutes destroyed.”

Though burning under extreme conditions, these fires were obviously in light, discontinuous fuels, and did not develop into firestorms. But in January 1994, fires burning under similar weather conditions, in dense, three-dimensionally continuous fuels produced by post-European neglect, were mostly uncontrollable, burning more than thirty thousand hectares around Sydney, and claiming hundreds of houses and four lives despite the efforts of a well-equipped army of firefighters.

Climate, Carbon Emissions and Bushfires

Climate is the average of the last 30 years of weather. It is difficult to provide any evidence that warming of climate since say 1900 has produced any increase in bushfire damage.

Scientists tell us two things relevant here:

Firstly, increased carbon dioxide levels FOLLOW increases in global temperature – therefore increased CO2 are caused mainly as warming oceans expel CO2 and cause increased evaporation of oceanic water. A warming climate with more carbon dioxide and water vapour being expelled from the oceans will increase precipitation and plant growth, neither of which are direct bushfire risks.

Secondly, climate is governed by solar system cycles and man's activities have zero effect on them. There is evidence that the carbon dioxide content of the atmosphere has increased as oceans warmed since the Little Ice Age bottomed at around 1900. The only clearly observable effect of this increase in CO2 is greater growth of plant life (this recent greening of the planet is shown clearly by satellite photos).

Weather can exacerbate bushfire risk – hot dry winds fanning a fire in heavy fuel load is guaranteed to create a wildfire that no firey with a water truck, a helicopter or a water bomber will extinguish. You can only fight such fires with fire (backburning). And with heavy fuel loads, that is hazardous unless there are previously burnt areas or wide cleared tracks to contain the fire.

Recommendations to this Enquiry re Bushfires

We've had at least 57 bushfire enquiries since 1939 – about one every two years. Anyone who bothers to study their reports will soon deduce what should be done. Nothing much has changed except there are more people living in fire-prone zones with scant protection, more forest and private land is locked up with heavy fuel loads, and there has been totally inadequate fuel reduction in locked-up land.

The recent bushfire tragedy has occurred after 30 years of unprecedented government control of environmental and bushfire policy by all levels of government. Some destructive policies have been imported under "international agreements". As a result, ordinary Australians have been dragged into court for constructing firebreaks or removing dangerous trees on their own land. Governments and green advisers have assumed total stewardship of the environment and they own the results – massive destruction of lives, homes, property, livestock, wildlife and vegetation – over five million hectares and 2,000 homes burnt.

Here is a **Five Point Plan** which should come from Bushfire Enquiry number 58.

Firstly, appoint trained and experienced foresters to maintain safe and healthy public forests. They should be given authority and resources for reducing fuel loads especially in national parks and forests by cool season burning, or by combinations of grazing, timber harvesting, slashing/mulching and collecting dead fire-wood. Private landowners must be enabled and obliged to become fire safe, subject only to local fire wardens.

Secondly, create and maintain wide clear trafficable roads, tracks and firebreaks through the forests and around towns and private properties. In fire seasons, these patrolled fire-barriers

will help to confine any fire to one sector and provide a prepared line from which to back burn if there is an approaching fire.

Thirdly, build more dams and weirs to provide water for fire-fighting and to provide fire havens for humans, animals and vegetation. Increase penalties for arson in times of high fire danger.

Fourthly, abolish restrictions on the management of “protected” vegetation reserves on private land – especially those on private land sterilised to fulfil government Kyoto Protocol promises or under Local Government and State Government vegetation protection rules and regulations. Governments have created these fire hazards by trying to wrap vast areas of vegetation in cotton wool and green tape (both of which are flammable). Sadly, Government “protection” of flora and fauna has proved to be the fiery kiss of death.

Fifthly, decentralise fuel and forest management out of the cities and into the regions.

City-based politicians and bureaucrats have done enormous harm by locking up land and opposing fuel load reduction. Decisions on vegetation risk management should be handed to property owners, park rangers, forest managers and rural fire wardens.

The Commonwealth must revoke up the National Forest Policy Statement of 1992/5. This policy was signed by all states and territories. It is the root cause of Australia’s major socio-ecological crisis of forest decline, scrub invasion, pestilence, loss of biodiversity and mega-fires. It must be turned right way up to reinstate active adaptive management of all native vegetation across the landscape. All Commonwealth environmental funding should be contingent on states/territories signing off. Bureaucratic box-ticking in “State of the Forests Reports” should be replaced by critical analyses of performance against Criteria, especially Criterion 3 Ecosystem Health and Vitality (3.1b is Area of Planned and Unplanned Fire). States/Territories performance should have consequences in Commonwealth Funding.

There is no other useful role for the Commonwealth unless asked by States or regions for logistic support or to help fund bushfire training, fuels management or fire proofing of essential infrastructure. The Commonwealth should NOT be given more power over vegetation or bushfires. The Commonwealth has authority to deploy servicemen to protect Commonwealth property or defence installations and to move hospital ships, helicopters or landing barges anywhere they feel they may be needed. Otherwise it is better if Canberra politicians and officials keep out of the way.

Viv Forbes

Viv Forbes has science qualifications and been a field geologist, mapmaker, explorer, pastoralist and weather-watcher in Queensland and NT for most of his long life. He and his wife Judy have spent much of their life in the bush and on farming and grazing properties in Queensland and NT. They were both volunteers in a rural fire brigade for over 25 years. They have fought many bushfires and have seen several fires lit – some deliberately, some naturally, some carelessly. One careless fire burnt out their exploration camp in Arnhem Land, another accidental “fire with nine lives” threatened their grazing property in SE Qld. And a fire they deliberately lit on another property they owned cleared a lot of lantana, dead grass and leaf litter from their property. (This fire did not stop at the boundary and made the adjacent National Park a much safer neighbour for a while.)

Below is a true story about one fire we fought on our grazing property during the Millennium Drought:
“**The Fire with Nine Lives**”: <https://saltbushclub.com/wp-content/uploads/2019/09/the-fire-with-nine-lives.pdf>

Reading:

Here is a selection of articles on bushfires published by the Saltbush Club:

<https://saltbushclub.com/category/bushfires/>

Why do we need another enquiry?:

<https://theconversation.com/we-have-already-had-countless-bushfire-inquiries-what-good-will-it-do-to-have-another-129896>

An Inferno of Incompetence and Obfuscation:

<https://quadrant.org.au/opinion/doomed-planet/2020/01/an-inferno-of-incompetence-and-obfuscation/>

The Destructive Hypocrisy of the Greens:

<https://www.youtube.com/watch?v=IMfYjKauHbs&feature=youtu.be>

Now we worry about drought-breaking rain:

<https://www.smh.com.au/politics/federal/drought-breaking-rain-likely-to-cause-greenhouse-emissions-to-rise-20200116-p53rze.html>

Green Ideology fuels the fires in Australia:

<https://wattsupwiththat.com/2020/01/17/the-reason-green-ideology-can-light-catastrophic-fires-in-australia/>

About the Saltbush Club:

An Introductory note is here:

<https://saltbushclub.com/wp-content/uploads/2019/01/saltbush-introduction.pdf>

You can see our Foundation Members here:

<https://saltbushclub.com/wp-content/uploads/2019/01/saltbush-founding-members.pdf>

And our Supporting Members (this list is added to continually):

<https://saltbushclub.com/wp-content/uploads/2019/01/saltbush-supporting-members.pdf>

A quick summary of our experience and skills is represented here:

<https://saltbushclub.com/wp-content/uploads/2019/01/saltbush-skills.pdf>

And the Saltbush platform summary here:

<https://saltbushclub.com/wp-content/uploads/2019/01/saltbush-priorities.pdf>

We give permission for this submission to be published:

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