

Your details

Title

Mr

First name

Howard

Last name

Charles

Submission details

I am making this submission as

A resident in a bushfire-affected area

Submission type

I am making a personal submission

Organisation making the submission (if applicable)

Coolringdon Research Trust

Your position in the organisation (if applicable)

Trustee

Consent to make submission public

I give my consent for this submission to be made public

Share your experience or tell your story

Your story

Coolringdon is a supporter of the HighFire Project which has a strong message for this inquiry. Coolringdon also owns substantial amounts of grasslands in the fire prone High Country.

Terms of Reference (optional)

The Inquiry welcomes submissions that address the particular matters identified in its [Terms of Reference](#).

1.1 Causes and contributing factors

Ancient Knowledge Or Modern Myth?

Fires Don't Burn Without Fuel

Control The Fuel To Control The Fires

Changes In Climate Demand Urgency For Better Management

A SUBMISSION TO THE NSW GOVERNMENT INDEPENDENT INQUIRY FOLLOWING THE CATASTROPHIC BUSHFIRE SEASON OF 2019-2020

Proponents:

BARRY AITCHISON OAM, Former Fire Control Officer, Snowy River Shire Council 1981-2015. Mr. Aitchison owns property on Snowy Plain, adjoining Kosciuszko National Park, where the HighFire Research Project was established in 2007, under the direction of Professor Mark Adams of Sydney University, in partnership with the Bushfire CRC. This was established by the Federal Government following the 2003 Nairn Inquiry. Mr Aitchison's property was burnt during the recent bushfire on 8-1-2020.

JAMES LITCHFIELD OAM, Fourth generation Monaro grazier and Trustee of the John and Betty Casey Coolringdon Research Trust 1999-2018, when he retired and was replaced by:

HOWARD CHARLES OAM, Former Fire Captain and Life Member, Nimmitabel Bushfire Brigade. Second generation Monaro grazier and current Trustee of the John and Betty Casey Coolringdon Research Trust, a charitable trust supporting agricultural research with the Faculty of Science, Sydney University. Assets of the Trust include Coolringdon, a large grazing property near Cooma and property on Snowy Plain, supporting services to the HighFire Research Project.

WE WOULD WELCOME AN OPPORTUNITY TO ADDRESS THE INQUIRY

Bushfire inquiry submission executive summary

Lessons from the highfire research project on snowy plain

The Bushfires which ravaged the escarpment of the Great Dividing range in three states, from September 2019 through to February 2020 were probably the greatest environmental disaster this country has seen, with approximately 10 million hectares of bushland devastated and maybe a billion native fauna crucified and millions of tonnes of soil either lost or sterilized, polluting important rivers and dams.

The media coverage of these fires has told stories of the amazing courage and heroism of firefighters and brought home to us all the devastation that the fires have brought to communities, businesses and individuals and the terrible loss of life and livestock suffered by too many people. Maybe it has not fully covered the devastation that has been caused to our bushland and wildlife. Prevention of this re-occurring is the focus for our submission. Much of this bushland was within National Parks and their failure to manage the land effectively including a regular program of fuel reduction to substantially reduce the fuel load before the fire season arrived was the main contributing factor to the fires burning hotter than ever before and therefore being more damaging to the environment and to destroying more assets (over 3000 houses) than ever.

Climate Change has only exacerbated this situation and unless there is a change of culture in the management of the National Parks, the regime of Mega-fires that has been occurring with increasing frequency in the last 70 years, will continue to ravage our bushland and forever change the ecology, which was once valued so highly.

Does the NPWS have a Mission Statement? If so, it should feature reducing as much as possible the fire risk, (surely the greatest risk to our parks?) and protecting the wildlife from harm. They have obviously failed dismally on both counts! If they do not have a Mission Statement, it is time they did have one which highlighted these essential aims.

Shutting up the land and “leaving it for nature to look after itself” is the very antithesis of the care and management previously carried out by indigenous people for millennia and carried on by Mountain stockmen. This kept scrub growth controlled, which is the means by which the fire reaches the canopy and generates the mega fire storms. The Aboriginal system of mosaic pattern burning created the “open park-like” bush, which was noted by all the early explorers and recorded in paintings by the famous artists of our colonial era.

The HighFire Research Project, launched by Gary Nairn, following his Inquiry into the 2003 Fires, under Sydney University’s Professor Mark Adams and Snowy River Shire Council FCO, Barry Aitchison, compares country with no fuel reduction, to that with regular “cool burns”, to the same, but with careful stocking with cattle as well. This has overwhelmingly shown the benefit of fuel-reduction burns combined with livestock grazing without compromising environmental values.

The raging fire was subdued and was able to pass through that country without causing serious damage. The green tree canopy remained intact and the grass has already recovered! Compare this with the magnificent stands of Alpine Ash at Sawyers Hill, which had survived for at least 500 years, but have now been completely destroyed by the combination of the 2003 and 2020 fires!

Overseas, these fire prevention measures have already been reintroduced, or never ceased.

Management of the whole modern landscape to effectively reduce heavier fuel loads and generate improved quality water yields, which was the basis of the Hume-Snowy Bushfire Prevention Plan, and demonstrated again by the HighFire Research project, with a combination of indigenous cool burns at the right time, modern science and careful livestock management is paramount. This will also reduce unwanted smoke from burn-offs.

The ecology of the high country, which had evolved over thousands of years of indigenous management, the “open parks” which greeted the early settlers, must again become the model for management of our bush country, rather than the wilderness of highly flammable scrub created by more recent Park management’s “Lock it up and Leave it” policy.

A partnership with indigenous people to redesign management’s fuel-reduction policy, would lead to control of the growth of scrub, which has invaded the Park over recent years.

It is this infestation of scrub which was controlled by cool burning, which now burns so fiercely and links the ground fires to the tree crowns, leading to the intense mega-fires.

Under this flawed policy, noxious weeds such as blackberry, briar, broom, African Lovegrass, Serrated Tussock and St John’s Wart have invaded the Park land, while uncontrolled vermin such as pigs, deer, cats, foxes, dogs, and rabbits have destroyed many native species.

These recommendations have all been made in numerous Royal Commissions and Inquiries into previous fires, but the policy changes have been negligible or inadequate, despite clear warnings of the consequences. If this were a corporation heads would roll and the Hayne Royal Commission has clearly shown that cultural change will not happen unless that occurs.

Responsibility for this devastating disaster for our native Flora and Fauna and soil cannot be shifted onto Climate Change or drought. It is the mis-management of our Parks and their failure to accept the urgency of reducing the heavy fuel loads of accumulated scrub that must accept the blame for the unprecedented devastation these fires have brought about.

This time change must be made to happen so that the accelerating cycle of terrible mega-fires does not continue!

James Litchfield OAM Barry Aitchison OAM Howard Charles OAM

1.1 Causes and Contributions

While there are many reasons for the causes of bushfires that ravaged eastern Australia during the 2019-2020 bushfire season including the on-going multiyear drought which has been exacerbated by a variety of other factors including the long-term effect of climate change. There can be little doubt however that poor/lack of management of vegetation and associated fuels loads in areas under the control of government organisations, specifically New South Wales National Parks and Wildlife Services (NPWS) has greatly aggravated the recent catastrophic fires. Since the establishment of Kosciuszko National Park in 1967 the guiding management principle around vegetation is that it must be kept in a manner which is considered to be pristine and as such this has involved the locking-up vast tracts of lands with a hands-off management to a large degree. The reality is that ecosystems need to be managed as there can be no argument that even ecosystems that are considered pristine or wilderness have changed in response to previous history, changes in climate, and other impacts (i.e., Snowy Hydro), on-going invasions of introduced plants and animals, etc. While there is some degree of hazard reduction burns undertaken (~135,000 ha annually), there is much to argue that substantially more areas need to be burnt and/or burns need to occur in much strategically smarter and focused manner.

While “The main objectives of the Kosciuszko National Park Fire Management Plan are to protect human life and property; and to conserve the park’s natural and cultural features, catchment values and recreational opportunities.” (Good 1996) it is apparent that the current implementation of this plan is clearly not succeeding with 3 major fires (2003/4, 2006/7 and 2019/20) in the last 17 years. Prior to NPWS taking over fire management duties for the Alpine regions of southern NSW in 1985, this role had been managed by the Hume-Snowy Bushfire Council (HSBC) which from 1951-1985 was responsible for the planning and co-ordination of prescribed burning programs as well as bushfire suppression.

The role of hazard reduction burns has been well documented in numerous enquiries, peer-reviewed scientific papers, books and other reports and we see no value in rehashing their findings. We would however like to include the results of the HighFire study. This study, which is the only long-term (13 years) study of its type in Australia was specifically designed to investigate in a controlled manner the role of hazard reduction burning and traditional grazing in Alpine woodland and grassland ecosystems and is located in NSW High Country. The results of these studies indicate that regular (~5 years) cool burns not only reduce (by ~75%) the main fuel in these alpine woodlands, *Boschiaea foliosa* but also reduce the surface litter (fine fuel or duff layer) and may also potentially (in combination with grazing) reduce another type of fuel, coarse woody debris (wood with a diameter of > 2.5 cm) which is elevated (located above the ground layer) and thus is more likely to combust compared with woody material located on the surface. For additional details please refer to the appendix “Summary of Results for the HighFire”.

10 million ha destroyed and a billion of our precious native wildlife crucified by false ideals. These fires have exposed a crisis in the management of our National Parks, which must carry the burden of responsibility for this devastating loss and there must be change. “If you keep doing what you were doing before you will end up with the same result”. That would be a tragedy, both for the land and for all our native Fauna and Flora

- From the Nairn report into the 2003 fires in KNP: “The consensus is that private landholders are liable for their mistakes, yet public landholders are not”
- “Wilderness” is a well-intentioned but misguided ideal, which cannot be sustained without careful management. “Unfortunately, too often they did not realize their wilderness was gone until they had destroyed much of the wildlife in it.”
- All the early explorers noted the “park-like” appearance of the Australian bush, with little undergrowth except sweet grass, due to the regular and systematic burning carried out by aborigines, both for their hunting, food gathering and for ease of travel. This legacy of their careful management for millennia, which ensured no catastrophic bushfires, needs to be recognized, acknowledged and honoured.
- This was exactly the same in the area which is now the Kosciuszko National Park, which was regularly burned by many visiting tribes as they sought the bogong moths.
- Farming families followed the aborigines and ran herds of cattle and flocks of sheep in the mountains every summer and would drop matches and burn the rough patches of scrub as they withdrew their stock in the autumn, creating sweet grass for the next year’s grazing.
- Alfred Howitt: “the husbandry of the aborigines in using yearly fires to keep the forests open and grassy.” They “..dispossessed the aboriginal occupiers to whom we owe more than is generally surmised for having unintentionally prepared it for our occupation.” This wonderful legacy was acknowledged by early explorers, but more recently

seems to have been overlooked or forgotten by “wilderness warriors.”

- I have seen countless photos of glossy cattle and a stunningly beautiful kaleidoscope of wildflowers, demonstrating how well the cattlemen cared for their leases and how well the country responded to regular small burns and their livestock grazing, in stark contrast to the devastation of the intense, scrub-fueled fires of today.
- Just as the aborigines were small in number and easily pushed out by the white man, the mountain stockmen who then nurtured the park for the next 150 years, were easily pushed out by the army of academics and well-meaning but ignorant, urban “conservationists”, when the parks were declared in 1961-9, eliminating people and industry, both grazing and forestry, from the parks.
- The mountain lessees argued, unsuccessfully, that without their care and management, the scrub and weeds would overrun the park and bushfires would be uncontrollable. History has proved them absolutely right!
- This has led to a legacy of ever-hotter, more intense and more damaging fires, this year devastating over 10 million hectares and killing countless millions of our precious native wildlife. The Kiandra Courthouse had survived for 150 years and many alpine huts likewise, but nearly all have been lost in the latest fires. This is a terrible indictment of current Park management policy.
- In the UK, where farming and park management cooperate closely, “the landscape is dependent on the Fell farmer and his sheep, without them it would revert to scrub”
- From Whitaker’s Almanack : “Establishing a Nature Reserve is far from being a mere matter of fencing sheep and possibly people, out and then letting nature rip. For you may soon find it invaded by undesirable plants and animals that overwhelm those species you particularly want to protect.”
- Again “Nature is never static, in very large parts of the country environment which delights and refreshes urban man, the maintenance, the work, the ordered detail, the almost park-like appearance are not provided unassisted. They are the work of the dedicated farmer. Remove him and the land that was the nation’s pride and beauty will quickly deteriorate.”
- The beautiful European Alps have been grazed every summer by cattle, (lower elevation) sheep and goats (higher levels) for over 1000 years.
- In America, the Red Indians used fire in exactly the same way as our aborigines and their burning maintained the open grassland and created the prairies.
- The US parks were to be: “a pleasuring ground for the benefit and enjoyment of the people, a breeding ground for their frequently-hunted wildlife and the preservation and care of the environment.” As in Australia, burning was discontinued, to create ideal wilderness, but after many earlier failures and firestorms, US NPS management now have a detailed policy of prescribed burning and mechanical thinning to reduce hazardous fuel build-up in the parks.
- The HighFire research project, at Snowy Plain, under the leadership of Professor Mark Adams and fireman Barry Aitchison, where the tree canopy is still green and the grass already recovering, in contrast to the lifeless land of “nuked”, sterilized soil and bare, blackened tree-trunks, in much of the park, has clearly shown the tragedy of the current conflagration.

Also, this research clearly shows the way forward to rebuild Parks, which nurture both our native Flora and Fauna, in harmony with nature and return the parks to the beautiful heritage which had been created by 40,000 years of Aboriginal design.

A change in management culture of our parks is necessary and inevitable. Regular “aboriginal” mosaic burns are essential and incorporating livestock as part of the management working together, will bring back the open woodland, healthy, weed-free swards of grasses, clover and masses of wildflowers, crystal-clear mountain streams and abundant bird-life that was previously widespread and brought so much joy to all.

1.2 Preparation and planning

- A critical component in the planning of the bushfire mitigation is the need for a long-term and inclusive plan of management including fire management across all lands that are bushfire prone (both privately and government owned/administered). To that extent, we would call on the resurrection of the Hume-Snowy Bushfire Council (or the principles on which it was established) to encourage on a Whole of Landscape AND Whole of Interested Parties approach. At the moment with fire management/suppression in the Alpine region being entirely under the banner of NPWS there is lack of diversity around views on the way to best manage fire mitigation and suppression. This as a result leads to some perverse outcomes:
- For instance, fire trails which are put in during periods of fire-fighting are often deliberately revegetated or not maintained by NPWS after the event. This then means that when there is an urgent need to access these areas during later fire events, valuable time is lost and resources wasted in order to re-establish fire trails.

Australian bushfires have evolved this landscape

Fires don't burn without fuel. Control the fuel to control the fires. Climate change only makes this even more urgent. Uncontrolled scrub growth erupts after fire. Aboriginal patch-burning controlled the growth of scrub. They used many more small fires in spring or autumn so megafires in drought summers did not happen.

All the early explorers noted "park-like" bush and early mountain graziers followed the patch-burning practice. They ran large mobs of livestock to eat the scrub. Authorities feared fire and restricted patch-burning. This followed "black thursday" in Victorian drought and heat-wave in 1851. Megafire cycle really started in 1939 so tighter controls were introduced. Instead of using more small fires at the right time and livestock. As a result fires became more frequent, hotter, more damaging and in summer. Bush must be managed to control scrub. Many overseas countries have also learnt that lesson and European alps have been grazed for over 1200 years. America reintroduced "prescribed" burning and scrub control in 1995. It is now mandated in USA parks which include deer and bison. Highfire project clearly shows the benefit of patch-burning and livestock. Every report on devastating megafires recommends scrub control. "Wilderness" is not natural, it is a dangerous modern myth. When will we learn?

Our recommendations are as follows:

- Reimplementation of the Hume-Snowy Bushfire Scheme or similar body. It would play a key role in not only managing fire mitigation and suppression activities but also would ensure that it would be the overarching body for regional/local fire-fighting operations to communicate and interact as a unified body.
- Establishment of a regular (3-5 years) regime of burns across Kosciuszko National Park (KNP). We are not proposing that the entirety of KNP is burnt but to consider the implementation of strategic burning in known historical locations of fire activity (i.e., ridge tops as recent fire events have shown that fire was skipping from ridge top to ridge top). In addition, burning should be undertaken in a mosaic pattern. Along with this the regularity with which fire are introduced into any given ecosystem needs to be considered as we acknowledge that the various ecosystems present in the park will have different adaptations and abilities to handle fire and thus different fire regimes will need to be implemented to take this into account. While burning has traditionally taken place in the High Country in September-October due to concern around the potential impact this may have had on bird nesting it now more commonly occurs in March-April and after the first frost of the season.
- "Breaking up" KNP into regions or smaller parcels which can then be managed for fire at a smaller scale. These could be based around the original boundaries outlined by the HSBC or new ones develop around vegetation types/water courses/ridge lines. Around each of these regions fire breaks/trails should be established and maintained.
- Putting in fire breaks/trails around the park (or the greatest extent that is reasonably possible) as well as locating them in strategic locations on known historical fire paths. These trails need to be of an appropriate width (as wide as can be feasibly achieved) and maintained with regular burns (approximately 3-5 years or as condition command, i.e., where trails pass through areas where shrubs are present (eg., *Bossiaea foliosa*) once *Bossia* gets to a height of approximately 30 cm or 12" they will then be burnt due to the critical role they play as fuel source).

1.3 Response to bushfires

Other recommendations

Evacuation centres are of limited value if threatened people cannot escape or if fire fighters cannot access targets quickly due to blocked fire trails

1. Hazard removal: All roadsides must be free of potentially dangerous or defective trees capable of blocking roads when they fall, thereby obstructing escape routes in times of extreme fire emergency, or delaying fire brigades' ability to deal promptly with spot fires.
2. Both these lines should be the start of back-burning operations and mosaic burning.
3. Final decisions concerning back-burning during fire outbreaks or fire reduction burns in mid-year campaigns must be the sole responsibility of experienced local Captains of Bushfire brigades, on the ground after due consultation with the Bureau of Meteorology and Fire Control authorities.
4. It must be recognized that Fires are inevitably unpredictable and mistakes will occur with hindsight. These qualified and experienced Fire Captains, who make these decisions following due process must NOT be held accountable in these circumstances. Such claims based on hindsight should not be acceptable.

1.4 Any other matters

- We feel that as our local indigenous peoples have a long and continuous history of using “firestick” technology that incorporating their knowledge with current science and management would be an ideal way to bring fire back into these systems. Working with local indigenous groups utilising traditional forms of management has clearly worked well in other locations where it has been undertaken (NT). We acknowledge that due to the removal of the indigenous groups from their traditional lands may mean that in some cases may have resulted in loss of this knowledge however there are still pockets of local indigenous knowledge which still have the skills required to undertake such fire management in KNP.
- Asset protection zones need to be reconsidered. We feel that in some locations that the very high likelihood of fire occurring in these zones means that in some locations that property/structure should not be considered to be defensible. This is based on a simple cost:benefit analysis upon which it becomes extremely hard to justify the very real likelihood of the loss of human life of RFS volunteers (or other fire fighters) and resources (water trucks, water bombers, heavy equipment, etc) required to defend those areas which in all reality there should never have been property or other infrastructure constructed there in the first place. Simply put some areas are too dangerous to have buildings on them so these areas should be clearly delineated and they are either rezoned as a) Too dangerous which means that no building can be built there (or resided in) or b) while building can be built there (and resided in) it clearly stated that in the event of a fire that NO fire-fighting capacity (i.e., RFS or other government organisation) will be employed to defend these areas. As a result, it is then up to the individual (and their insurer) as to whether they want to maintain/reside in a building in that zone.
- Local experience is absolutely critical in the planning and implementation of fire mitigation and fire suppression operations. This was very obvious for the fires in and around KNP in regards to key infrastructure (radio towers on which emergency services relied on) that were not originally defended as fire controllers lacked local knowledge as they had been brought in from elsewhere (Sydney) (luckily locals with local knowledge ensured they were protected). Again we are only repeating what was specifically noted in the Nairn Inquiry. Thus again education and training newer/younger members of local RFS brigades to imbue them with the local knowledge which is often the most critical asset that we have in planning hazard reduction fires and fire suppression. We would also recommend that as experience is often increasingly lacking (as older members retire from actively fighting fires) that a process should be put in place to ensure that a “succession” plan for passing on this knowledge from one generation to the next should be actively encouraged. Without this occurring this knowledge will be lost and will ensure that we will not learn from past mistakes.
- We would like to strongly emphasise that the points that we have noted in this submission have been repeatedly pointed out in previous Inquiries/Royal Commissions, etc. In particular the 2006 Nairn Inquiry which was probably the most in-depth study of many of these factors, however many of these recommendations have never been implemented. There seems to be little point in having these ongoing and endless inquiries when in many cases we know the causes of previous failures but there appears to be no interest in implementing known fixes.
- ABC report: “Researchers estimate that smoke pollution probably killed more than 400 people during the unprecedented bushfires across southeast Australia from November to February.” Many more people, such as asthmatics, sought medical treatment as their condition was exacerbated by unacceptable smoke from bushfires.
- So, with a sensitive public and given Park management’s risk-averse approach to the difficulty of identifying suitable conditions to burn and with the unpredictability of fires in general, it is most unlikely that enough mosaic burning could ever take place in parks. There is also large increase in the number of assets in today’s bush complicating these decisions.
- As a result, many wise heads are now calling for the urgent reintroduction of livestock into the bush to assist with maintaining the reduced fuel loads, following the fuel reduction burns and extending the benefit of fuel reduction burns. This practice is working extremely well in northern Australia, mostly managed by the aboriginal rangers, returning to their practices which evolved the landscape and managed it so well for thousands of years.
- The weed suppression benefits of a well-maintained ground cover of native grasses have been recognized and recommended in every weed control program.
- Lease fees from well managed livestock would also add millions of dollars to the funding stream for Park maintenance. Modern technology, GPS, drones and electric fencing can make management and monitoring of livestock far simpler than the days of the mountain cattlemen, who nevertheless maintained the park in good condition.

The Kosciuszko National Park is the jewel of the great dividing range and of the many parks that have been created along that range.

It is the headwaters of some of NSW’s most important rivers:

The Murray River

The Murrumbidgee River

The Snowy River

The Eucumbene River

The Tumut River

And the great Snowy Mountains hydro-electric scheme

Protecting this crucially important catchment from the devastation that has been caused by this mega-fire and other recent mega-fires has to become the first priority of management of this priceless jewel.

Aborigines with their cool or patch burning protected it for millenia.

Mountain lease-holders and cattlemen continued that practice and protected it for the next 150 years.

The creation of the npws 60 years ago, with a policy of: "shut it up and leave it to nature" has failed that duty.

Changing that culture to bring back the Hume-Snowy bushfire prevention plan which succeeded for 35 years is absolutely essential!

Supporting documents or images

Attach files

- References.docx
- Summary of Results for the HighFire.docx
- Photos.pdf