

National Fire Fuels Science webinars

Wednesday 6 May 2020

The thing about hazard reduction: why is it so difficult and divisive?

Presenters:

- Dr Sarah Harris, Country Fire Authority
- Sascha Rundle, ABC Emergency Broadcasting
- Oliver Costello, Firesticks Alliance
- Justin Leonard, CSIRO

Questions and comments from the audience:

- The non-Aboriginal system of land tenure in Australia uses boundary lines on maps that often bear no connection to natural or geographical features. This presents a big challenge (under current legislation) for HR or any fires to stay on a landowner's property. Fire tends to follow vegetation types or other land features like creeks, roads or ridgetops. Has any consideration been given to overcoming this reality in the context of cultural or other types of prescribed burning?
- 500m zone from buildings is fine, but we also need to consider the spotting from fires much further out than 500m. Broad scale burning also allows safety for fire suppression sources to actively engage. We need to get away from the school of thought that we should only focus on the 500m zone. How do we do this?
- For Oliver. I imagine that traditional cultural burning practices were aimed at ensuring the continued supply of food and other resources. In areas where people are no longer living off the land, should we look at modifying the aims of cultural burning?
- Are losses over time data confounded by increased suburban development in bushland areas in recent decades?
- Based on what we know about life loss and distance to vegetation, should 'hazard reduction burning' or vegetation management resources be focussed on the urban interface and 'ecological burns' focussed on broader landscapes?
- Can anyone define "cultural burning"? It seems that there is no real definition and is very open to interpretation. It would be great if we could have a guideline to what entails cultural burning.
- Clearly public education around planned burning is lacking, the simple fact that we see consistent use of the term "backburning" to describe planned burning is evidence of a lack of basic understanding.
- Comment: My personal thought is that some of this inappropriate application of fire that Oliver has observed are being driven by: firstly, cost and people resource limitations (time)

within the agencies involved and secondly, burns are now being conducted under fuel conditions that are more representative of bushfire conditions rather than historic planned burning conditions consistent with Sarah's observations of extended bushfire seasons.

- Could the very low loss of life and property at lower FDIs be a reflection of the existing fuel reduction strategies, planning standards and construction standards working effectively?
- Debates about planned burning are arguably really debates about values and what we expect should be protected/safe. What do the speakers think: are we maybe too fixated on the effectiveness of burning, when we should be focused on what and who we are trying to manage landscapes for?
- Do we need to change the language used around fires when they are beneficial and not beneficial? e.g. are bush firefighters sometimes actually fire managers? If fires are a part of the landscape, are wild /bushfires only there to be fought, if we are custodians?
- Earlier this year Shane Fitzsimmons said that hazard reduction burning is not the panacea. Why is there still such a strong focus on hazard reduction burning, and such entrenched views against this process? What other things can be done by the government/landholders/traditional owners that may complement hazard reduction burning that may be held in higher opinion by the public? Any thoughts by any of the panellists?
- For Justin - in your graphic when increase the distance the percentage of all fatalities increase, can explain again?
- For Justin - Is there a parameter that defines local scale as opposed to broadscale landscape fuel management, particularly at the urban interface?
- For Justin - So is a reasonable conclusion that prescribed burning should focus more on within 500 m from houses rather than broadscale burning?
- For Oliver - what does he think we can do to encourage agencies to work more collaboratively and really take on the heart of what he is saying about a wholistic approach to veg management
- For Oliver, In South Australia on the APY Lands we have seen an impact from invasive weed species (ie Buffel Grass) causing hesitance in cultural burning, due to higher intensity fires. Do you see an impact on cultural burning/hazard reduction due to invasive weed species across Australia?
- For Oliver, was cultural burning possibly developed to also control the incidences of wildfire?
- For Sarah Harris, Oliver Costello and Justin Leonard. Can White Australia get off its pedestal and stop determining the hazard reduction program without having an equal decision-making relationship with indigenous culture experts. Can Australia start to have indigenous experts with a greater role in being incorporated in all State organisations responsible for land management programs.

- For Sarah, is there more validity to the Keech Byram Drought Index rather than FFDI when assessing vegetation condition?
- Given the difficulty of suppressing wildfires on high FFDI days, even with the presence of previous prescribed burning, what are some alternate approaches to reducing house/life/ecological loss on high FFDI days?
- Given the diverse range of opinions in the community on this topic, there is a real risk of polarised discussion. How then do we have a strategy that doesn't isolate pockets of the community and includes current science? Are there any examples where this has been done effectively?
- Has the ABC explored how can we shift the discussion from burn vs no burn to a more health of the environment discussion? Ultimately what we see in this country is just a symptom of a much larger problem - People love to simplify discussions (and politicians too) so media should help mitigate that tendency not amplify it
- How are we equipping landholders to become resilient? Coordinated fire mgt planning? individual fire mgt plans for property owners, skills and knowledge for private landholders to carry out prescribed burns and cultural burns
- How can we balance the knowledge gap between researchers and community?
- How much expertise is there currently in the indigenous population?
- How wide an area needs to be fuel-reduced to make a difference to severity and "fight ability" of a wildfire? For example, in dry forest in SE Australia, please give a rule-of-thumb of some kind!
- If as a country, we are struggling to understand the impact of climate change on the window of burning, aside from the basic, it will likely reduce the burning window. Do we then work to burn more effectively, do we investigate other means of fire risk reduction?
- If most effective hazard reduction is done within 500 m of houses - how can that be mandated and coordinated by government?
- If the number of burn days are decreasing this implies burning moving into winter and larger individual burns. Is this what is happening?
- In NSW we have Bush Fire Management Committees which are meant to represent the views of the government in each committee area. Should these committees, which are largely volunteer in the case of community representatives, or something similar be substantially upscaled in resources and scope to guide fire management and interacting land use objectives and actions in each area?
- Invasive species or environmental weeds such as Sweet Pittosporum and Coast Wattle within southern parts of Victoria have greatly altered fire regimes. Due to the density and damp nature of invasions, they greatly affect the ability to undertake planned burning under suitable conditions requiring a more adaptive approach. Is this something that is being seen across Australia, and even the world?

- Is there a similar correlation in GFDI as with the FFDI regarding fire season length?
- It is a cumulative presentation from zero to all outdoor life loss on our database. You can look up 'Bushfire life and house loss database' for more details (For Justin - Is there a parameter that defines local scale as opposed to broadscale landscape fuel management, particularly at the urban interface?)
- It seems clear that localised prescribed burns, done often, works in preservation of life/property, but why aren't we focussing more resources on other things to preserve life/property particularly on FFDI 75+ per Justin's research?
- It's unlikely that indigenous people had settlements in the Alps - the better lands would have been the flat, resource rich country where our modern settlements are. What are your thoughts on this, and how applicable cultural burning might be to the Alps?
- Justin – In South Australia, a recent program has focussed on partnerships between government-based fuel managers and selected private landowners, where fuel reduction burns have been held on private land using strategic risk assessment, pre-planning and suitable resource allocation. These have resulted in timely burns being conducted near at-risk properties rather than the usual mosaic burning in forests long distances from assets. Are you aware of this and should this approach be expanded?
- Justin, Will the life & property loss datasets be updated with 2019/20 bushfire losses?
- Justin, your research is indicating on the severe bushfire days people are dying in or near their homes. Is there data which indicates the homes built to the BMO has significantly reduced the chance of these fatalities occurring and whether you see a role for legislation which for set circumstances, requires bushfire bunkers to be installed, maybe for older homes not build to the BMO located in high bushfire risk areas.
- Justin, your statistics regarding the number for bushfire-related deaths in the proximity of one's home are stark, but not unsurprising. However, do you have any information about the types and age of the properties on which these deaths occurred? Have more modern construction techniques improved the likelihood of survival compare to older techniques?
- Many of the questions and speakers acknowledge that prescribed burning public debates have been divisive and repetitive for decades. Is it time to move past a 'deficit' model where we assume all we need to do is educate "the public"?
- Much landscape scale fuel reduction/fuel management is done with life and property as the primary focus. Justin Leonard's data suggests that what happens near residences is more significant in terms of reducing life and property loss. Should our landscape scale burning be more focussed on environmental and cultural outcomes?
- One for Oliver, what are some key techniques that make cultural burning methods more appropriate to that which you have seen being practiced to date?
- Putting fire back into the environment will be critical after the past season - many areas will need to be treated well before their supposed "fire return interval" if we are to manage the

build-up of fuel following the recent fires. How do we move beyond this ideological view that we need to remove fire in some ecosystems for greater than 80- Years?

- Wild/bushfires are an issue that does not have boundaries and involves all tenures and land uses, why do we not have a tenure-blind approach to planned burns and still have a public vs private land management?
- Question for Oliver - Is it possible to bring the landscape back to the state it was in prior to European settlement?
- Question for Sarah: Are you aware of projections for changes in fire season length and FFDI under climate change scenarios and the likely constraints they might place on safe hazard reduction burning?
- Question to Oliver - How do we increase the amount of cultural burning across the south eastern states of Australia?
- Risk management of all types is better framed as prevention, rather than reaction. How do we move the public discussion, and political will, forward to longer term planning and monitoring of outcomes for our environment?
- Russell, do you have ideas on how we can develop a fire "culture" (& appropriate burning regimes) for the future - incorporating climate change, changed landscapes, changing community values?
- Sarah, given that an extending fire season, would you consider that modification of fuel structure and state, via the use of mechanical or chemical measures a viable means of extending the burn season in autumn / winter by offsetting lower FDI weather conditions against a greater percentage of available dead fuels?
- Sarah, if the fire season is increasing in length, does that suggest that early and late season burning opportunities could also increase? What research has been undertaken to show the potential length of both the early and late planned burning seasons?
- Sarah, you touched on trends with regard to burning in Spring and Autumn - are those trends just based on hectares achieved and or what drove the trends? You also showed figures in relation to determining a fire season. Is there research around what determines the "planned burning" seasons both early and late? If the FFDI is higher over the summer months is it fair to say that the FFDI will be higher longer both early and late season allowing for more planned burning opportunities?
- Sascha, Justin highlighted the importance of vegetation management around houses. To what extent is this reflected in the views expressed by listeners in ABC forums? Also to what extent (if any) do you think listeners see this as a planning problem (where and how we have built homes/towns).
- Speaking as someone who was lucky enough to have their house survive a high severity fire, I believe house design and construction as well as management of vegetation close by are equally important. Are standards being enforced?

- The 500m clear ground is a nice thought, however, both State and council building and Environmental bylaws preclude this
- The view from outside Australia, is that we are going through a planning crisis (apartments crumbling, houses getting burned or flooded regularly, fire prone cladding, inefficient transport grids). When looking at the local aspects, has the planning element been assessed? in other words, should we be more restrictive on where people build houses rather than relying on every person maintaining a certain standard and hoping for the best
- The views for and against prescribed burning (ABC presentation) are not new and we have heard all of them before. Many are very easy for us to respond to but how do we improve the information flow to the community and to those that have raised these views?
- These public opinions haven't in my experience, changed in 40 years. does this indicate we need to have stronger govt involvement in educating public in the real science rather than opinion?
- To Oliver. It seems that landscape management agencies and large landscape burns aren't paired with the concept of cultural mosaic burns because they work in different scales. How do you think landscape burns can adapt first nation knowledge and utilize this knowledge to guide their burns?
- To what extent has climate change disrupted traditional reading of landscape and the appropriate fire regimes to use?
- To what extent were cultural burns used across all landscapes within Australia (particularly in the SE where the worst of the effects of bushfires were felt as opposed to the grasslands / arid central / north Australia). Am wondering to what extent this may have occurred historically.
- What alternative methods to prescribed burning is there for fuel hazard reduction in close proximity to homes?
- Why do we have all our eggs in just the prescribed burning action for bushfire protection, when it's clear that opportunities to do so safely are very limited, and also that there is increasing evidence that prescribed burning really only works when done often and very locally?
- With Black Saturday catching everyone by surprise I feel that any graphs should include a line with that data and without that data. Some much has changed since then that as a large event it can easily distort any graphs
- With the changing climate do the panellists feel one potential avenue that should be investigated is removing residences from high risk areas for fires as a form of hazard management.