

## Conference Proceedings – Speaker Transcript

### Vegetation management in peri-urban landscapes: Perceptions and response to fire and risk

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[Link to slides](#)

I'd like to share with you today a very small snapshot of a research project that I'm working on. The focus of what I'll be sharing with you today is looking at some perceptions of vegetation management on the urban fringe in a couple of study sites in South Australia. This is part of a larger research project which is federally funded through the Australian Research Council Linkage grant scheme. The project is run through the University of South Australia in partnership with the University of Adelaide and we have three partner organisations, one is the state government of South Australia's Department for Environment, Water and Natural Resources, and two natural resource management boards, one being the Eyre Peninsula NRM Board and the other being the Adelaide Mt Lofty Ranges NRM Board. We also do have one representative from our partner organisations here, Kirstin Abley is in the audience today as well.

The larger research project that I'm working on is coming from a social sciences background. We're looking to address two key concerns, one being the threat of destructive bushfires occurring close to residential areas and the second being the need to protect the important and unique biodiversity in those areas. The sort of areas in the project we're talking about are on the urban fringe, represented by this photograph here in the Adelaide Foothills (slide 4). We have people living in these areas because they want to embrace this lifestyle with a semi-rural feeling but still accommodates residential living and business whilst being close to national parks and conservation parks for example.

Our study sites are shown on the map here: the lower Eyre Peninsula around Port Lincoln, and around the Adelaide Mt Lofty Ranges urban fringe areas (slide 5). We've chosen these two study sites because of their quite distinct recent fire histories to each other (or certainly up until January this year when there was a major bushfire in the Adelaide Hills, the Sampson Flat fire). We have the lower Eyre Peninsula residents experiencing quite regular recent bushfires certainly since the year 2000 onwards, and then we have the Adelaide Mt Lofty Ranges residents not really experiencing major bushfires for some 30 years since the Ash Wednesday fires in '83.

Our research has involved a very large postal questionnaire mailed out to some 3000 households in these two sites. You can see on the map where they've come back from as well (slide 6). We ended up receiving over 1000 responses which is really good. This year we're also following up with interviews with residents and with focus groups of a whole range of stakeholders from the South Australian CFS, state government employees, planners, foresters, conservation groups and others as well as local government.

The snapshot of results that I wanted to share today connects with the conference theme of ‘what does it mean to use fire for restoration’ (slide 7). Well I’m looking specifically at ‘what does it mean to the local residents on the urban fringe of these areas?’. There are three different aspects to this: we looked at people’s level of support for prescribed burns, at their understanding of fire for restoration, and we also looked at some questions about what information sources they use to get information about fire risk and biodiversity conservation. In our questionnaire we wanted to look at people’s level of support for prescribed burns as one type of vegetation management option as opposed to vegetation clearance or other methods which we also asked perceptions on.

In the graph here (slide 8) I picked out a small selection of statements that we used in our survey asking people to rate for us their level of support for different prescribed burning scenarios. I included this graph to highlight that the responses showed no significant differences whether it was support for prescribed burnings for restoration purposes or whether it was prescribed burning close to their home, or if it was undertaken within a conservation area itself. Looking at the base level, the level of support that we found showed overall high support, which was quite surprising for South Australia.

However when we looked more closely at the actual written comments they provided, we learnt more about what they understood by this. The difference in the size of the font here between ‘biodiversity wins’ and ‘biodiversity loses’ represents the proportion of people who referred to their concerns or lack of concerns about the impact of fire on biodiversity (slide 9). If people had a greater understanding of how native vegetation responded to fire, it could have prevented, in this case, some unnecessary revegetation efforts (as seen in the photo), you see little tree shields in there. For example one person wrote, “I walk in the Adelaide Hills several times a week and I’m so disheartened that burn-offs destroy what the native animals and birds need for survival and in its place grows bracken, blackberries, broom and all other pests and weeds”. So we’re looking at comments that people write such as this and we’re analyzing them to determine whether they think there are positive or negative outcomes for the biodiversity in their area. We’re also analyzing whether or not they see these prescribed burns as risk to them or not. You can see again the size of the font represents whether or not they perceived an increased or reduced risk (slide 10).

Lastly, in terms of information sources that people use (slide 11), you can see a list of sources in the first column and then little green arrows pointing upwards representing when people showed greater support for ‘prescribed burns in general’, and greater support for ‘prescribed burns for restoration purposes’ in relation to that information source. So if someone uses CFS materials to gain their information as opposed to another information source, they were actually significantly more likely to support prescribed burning whereas people who were reading newspapers or talking to neighbours were on average less likely to support prescribed burning. This reminds us that it is vital that policy makers understand the public response and formulate suitable education and engagement programs to enhance public awareness of bushfire risk, conservation, and the role of fire in maintaining biodiversity.

A key benefit of our work might be the examination of how information could be packaged and delivered to better inform residents of the roles of biodiversity conservation and the goals of bushfire management and how these issues are strongly integrated (slide 12).

Changes in vegetation management might ultimately compromise the effectiveness of biodiversity conservation policy, as well as the perceived values of green space for recreation, health and amenity.

Where Government implements policy for significantly more prescribed burning or the clearance of native vegetation to reduce fuel loads, the very nature of the local biodiversity may change, which can influence the reason why many people choose to live where they do. The challenge therefore is to implement bushfire risk mitigation that could catalyse improvements in biodiversity management by favourably disposing residents towards land-use planning for both conservation and risk management.

As mentioned, the findings will assist policy makers with the management of public responses to these issues. Exploring community perceptions and understanding of what it means to use fire for restoration is going to help guide the development of the most suitable education and engagement programs.

### **Questions from audience**

**Q** – Hi my name's Sam, I run the fire and biodiversity consortium in South East Queensland. Looking at the response there with community perceptions around the benefits or otherwise of prescribed fire in terms of biodiversity, that's a big hurdle to overcome there, do you have any thoughts about reaching out to community, engaging with community to try to provide a bit more factual information?

**EM** - Yes, I guess what we're hoping is if we can use this snapshot to get the local authorities to understand what the public think, we can work together to develop those engagement programs. We don't actually have answers either but as we go along in our focus groups we are also asking for ideas from everyone that we'll analyse and put together, so hopefully we get some suggestions through this process to share with the various authorities and stakeholders.