



Fired Up?

Understanding the disconnect between bushfire awareness and preparedness amongst diverse rural landowners

Christine Eriksen ~ ce967@uow.edu.au
School of Earth & Environmental Sciences, University of Wollongong



I'm going to hold up the social science banner and talk to you about the disconnect that I come across frequently in my research amongst a very diverse set of rural landowners. It's a disconnect between the bushfire awareness landowners have in comparison to their actual level of bushfire preparedness.

I've called this presentation 'Fired Up?' because it seems to be a very diverse set of factors that influence whether landholders actually engage with local bushfire issues or even just the thought processes that could initiate better levels of preparation.

My project is based on PhD research at Wollongong Uni. I'm currently in my final year and in the midst of transcribing and analysing 60 odd hours worth of interview recording and statistically analysing findings from a postal survey, so bear with me here because it's possibly not the moment of greatest clarity!

Project Aims

- What are landholders' relationships with bushfire in New Rural Landscapes?
- What are the significant factors that influence these relationships?



I'm looking at landowners' relationships with bushfires in what I've termed 'new rural landscapes'. With NRL I'm referring to rural areas that are experiencing population growth – also known as tree-change – due to their proximity to major urban centres; they've got a high amenity value; they've got a rapid re-composition of their population – a huge population turnover with urban migrants purchasing land, often subdivided farmland, whilst the more traditional rural population is aging or declining.

Some of the consequences that are attached to this amenity led migration is that lifestyles and values more commonly associated with urban areas are being brought into rural places, whilst many of the new landowners have no history of fire in their families.

So I'm trying to grasp what the significant factors are that influence landowners' relationships with bushfire.

And I'm trying to gain a better understanding of how local environmental knowledge on bushfires is produced in these areas today.

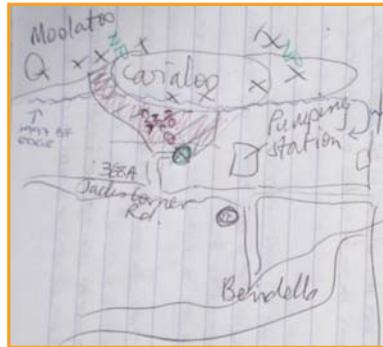
How it's shared amongst diverse landowners – if at all – and how this influences the dynamics of local rural fire brigades and bushfire management within these areas.

I'm looking at how bushfire management in these areas is influenced by the geographical context of everyday life. So how does experiences of place, culture and context mediate how landholders' relate to bushfire?

Project Background

Three Building Blocks:

- Conflict over bushfire management and suppression
- Significance of local knowledge in bushfire management
- Scrutinise the concept of 'local knowledge'



The project has three core building blocks.

It builds on conflicts over bushfire management and suppression and how this conflict quite often is split along broadly rural – urban lines.

Within NRL traditional rural-urban distinctions are arguably breaking down and alternative forms of 'ruralism' are emerging. How does that influence local bushfire knowledge?

The second building block is the increasing recognition that local knowledge, esp. that held by volunteer fire-fighters in rural brigades, is significant in bushfire management.

The third building block is to problematise the concept of 'local knowledge'. The term has been widely used within all levels of policy documents and academia but it's not at all clear what exactly 'knowledge' is perceived to be and how it would feature in NRM processes.

Study Areas

Oakdale/Nattai/Orangeville/Werombi | Kangaroo Valley | Windellama



I've been working in three study areas: the Oakdale-Nattai area north-west of Picton; Kangaroo Valley; and Windellama on the Southern Tablelands.

These three areas were chosen because of their varying proximity to two of Australia's biggest economic and political centres – Sydney and Canberra.

They have a varying degree of land use change and farm subdivision.

And all three areas have high amenity value.

There is also the presence of significant areas of heavily vegetated land and/or national parks, which heightens the risk of bushfire in these 3 areas.

These points are important from a NRM point of view because of the high strategic, spatial, economic and environmental significance of these areas. Amenity led migration is a phenomenon that is taking place across Australia today, so these three case studies provide a good foundation for comparison with broader bushfire management issues in NRL across NSW and Australia.

Project Methodology

- Evaluate concept of local environmental knowledge
- A postal survey of landholders
- In-depth field-based interviews with landholders
- Participant observation and site visits



Methodologically I initially critically evaluate the concept of LEK within the literature that already exist.

That was followed by a postal survey of landowners in the three study areas. Near on 100% of landowners received a copy of the survey and the response rate was 16%, so about 350 completed surveys were returned.

The survey looked at the overall picture of landholders' type and level of engagement with BF management: how land management is carried out on individual properties; If landholders are involved with their local fire brigades; landholders experience of bushfire; and the role of bushfire in their land management aims.

Interview participants were chosen from the completed postal surveys and field-based interviews were carried out with landowners on their properties.

I've conducted 27 in-depth, interactive, semi-structured interviews with 38 landowners.

The interviews were interactive in that landowners were given a disposable camera prior to the interviews to take photos on their properties of what they do land management wise and anything they think is significant in relation to bushfire.

Another part of the interviews were long walks on the property or drive-throughs.

I've also been using participant observation to gather data through attending brigade training sessions; workshops on bushfire management and other local events like LandCare field days.

Preliminary Results

<u>Year of: Purchase</u>	<u>Move</u>	<u>Previous Residence Area</u>	<u>Main Reasons for Purchase</u>
< 1969:	4%	4%	- Lifestyle / Escape urban life
1970s:	7%	7%	- Affordability of property
1980s:	24%	18%	- Location
1990s:	29%	27%	- Views / Visual appeal
2000s:	34%	41%	- Nature
			- Space / Privacy



The preliminary results show a rapid increase within the last 20-30 years of rural properties being purchased followed by subsequent permanent relocation of families to these properties. The closer we get to the last decade the higher the percentage of people moving there has become.

What's interesting is that of the people who are currently living in my study areas, 57% moved to these areas from an urban area and another 15% moved there from urban fringe areas within the last 30 odd years, demonstrating a high turnover in the type of people who live there.

This inevitably has an impact on the type of knowledge held within the local communities because the majority of the people who moved there from urban areas have no history of bushfires within their families.

The 2 main reasons people give for moving to these rural areas is lifestyle and space. The price of property within these areas has meant that people could have the lifestyle they wanted.

Location is important because a lot of these people are still commuting into Sydney to Canberra for work, meaning that many landowners will not be at home during the day should a fire start.

Views, visual appeal and being close to nature is important as well and these values often underpin people perceptions of how bushfire risks should be managed.

Landowners desire for space and privacy is also important from a bushfire point of view because people quite often build in remote, isolated bushland or they plant gardens or hedgerows close to their houses.

Landowners' Bushfire Experience

Have you experienced...?	(N = 348)
Evacuated due to bushfire	15%
Fought fire on friends/family's property	22%
Fought fire on your own property	24%
RFS fire fighting	33%
Seen a bushfire burning in bushland	83%
Seen an area burnt after a bushfire	87%

Interviewer: "Do you think fear is built up by not having experienced a fire? You were saying that you've lived through Ash Wednesday – does that experience change the way that you approach it here because you know what you are dealing with?"

Husband: "That's a good question. I think what it does is it makes you respect the necessity of educating yourself. You really need to be conscious that at some stage or other a fire's going to come here. If it doesn't you're blessed..."

Wife: "It's a tricky question though, isn't it? I haven't had fire on any lands that I've been on. I wonder if you're actually more scared if you've lived through it because you know how horrible it is."

Following on from the point in the previous slide about the lack of bushfire experience amongst landowners – what is quite clear out of the 350 odd landowners that completed the survey, is that it is an insignificant proportion of them that have concrete bushfire experience.

15% of them have been evacuated due to bushfire and pretty much all of these are from the x-mas 2000 bushfires in the Oakdale area.

Only 20-30 odd % have been actively involved in bushfire fighting and the vast majority of bushfire experience amongst these landowners is visual bushfire experience either through seeing bushfire burning in bushland or having seen an area burnt after a bushfire.

I've included a quote here from one of my interviews, which touches on the issue of whether fear of bushfire is greatest when people have or haven't experienced a bushfire. I've included it because my research possibly is showing a link between fear and experience resulting in active bushfire preparation whilst fear and no experience results in complacency.

Please burn... but not in my back yard

Stance 1: Using Fire

- ❑ Emphasises benefits of bushfire and hazard reduction burns
- ❑ Landowners who are off the land or work directly with the land
- ❑ Long-term landowners
- ❑ More likely to be involved with local fire brigade

Stance 2: Ecological Orientation

- ❑ Emphasises concern for the environmental impact of burning
- ❑ Landowners with higher education levels
- ❑ Newer landowners and weekenders
- ❑ Less likely to have personal bushfire experience

The two stances are not mutually exclusive...

There's two stances towards bushfire that is coming out of my research.

Landowners tend to lean either towards a stance that emphasises the benefits of bushfire and hazard reduction burns or a stance that emphasise concern for the environmental impact of burning.

The type of people who emphasise the benefits of using fire, tends to be people who either have lived all their life on the land or work directly with the land. They tend to be people who have been landowners for more than 10 years and they are more likely to be actively involved with their local fire brigade.

The other group of people who tend to be concerned about the environmental impact of burning often are newer landowners or weekenders. They quite often have a higher education level, which could be connected to them being newer landowners, as they have moved to rural areas after living in urban environments during their education and early career years. This group of landowners is less likely to have personal bushfire experience.

The two stances are not mutually exclusive however. There seem to be an almost across the board agreement amongst survey as well as interview participants that they would like to see more hazard reduction burns in their local areas – although many draw a distinct line between hazard reduction burns in their area and on their own property.

Awareness ~ Attitudes ~ Preparedness

"It's real now (no longer just a news item). When we moved here I didn't realise we had to be so prepared for bushfire every summer."

"I've learnt a lot. City farmers don't know much. Myself included."

"Seeing at least three fires in Oakdale within 10 years created awareness. You need to experience one..."

"I thought we had enough clean land around our house – wrong!"

"Having experienced 2001 fires I know we can't fight nature. I know we can't rely on bureaucrats or media for information."



Three key themes run through my research: awareness, attitudes and preparedness. In the following slides I've included quotes from landowners that highlight the points that I'm trying to get across about how awareness, attitudes and preparedness are significant individual entities in understanding landowners' relationships with bushfire.

Awareness of local bushfire threats within the very diverse set of landowners in my study areas generally appears to be good.

Landowners' bushfire awareness, however, is not directly correlated with their level of bushfire preparedness.

Regardless of awareness levels, attitudes towards bushfire and natural resource management seem to influence if, how and to what extent landowners prepare for bushfire events.

Awareness ~ Attitudes ~ Preparedness

“Bureaucrats in offices in Sydney make decisions on what happens out here and those decisions are fundamentally wrong as they don’t live here.”

“I am more worried due to the lack of controlled burn off from farmers. The ‘Greenies’ have seen to that. Underlying dead fuel is a real threat.”

“I should clear more around the house but I regret destroying natural bush.”

“The bigger fear is that he’s out somewhere. There is no mobile range here. There is no contacting people. It’s the contacting. And that’s why the little walky-talkies – at least hearing them out there. Because once I phoned up to say there is a lot of smoke and I can smell burning, where’s it from? And I was obviously by myself, I think I had one of the kids with me. Like, you’ve got to be able to talk to somebody. You have to be able to call, like, what do I do? I can’t even turn on the pumps. I, you know, he says go out and turn one valve this way. I have to have him telling me what to do! I can’t work the pumps.”

These attitudes range from apathy, ‘it won’t happen here’, disengagement by women, distrust of authority, distrust of farmers, to environmental concerns.

To be able to tackle some of the problematic consequences these attitudes have in relation to how people engage with bushfire, we really need to build bridges between diverse types of knowledge holders, so landowners are able to take a more informed stance towards bushfire risks.

I want to briefly focus on the last of the quotes on this slide because it’s one of the key issues that is coming out of my research that I will return to later, which is the need for training specifically aimed at women. After this exclamation, I asked why she doesn’t make a point of learning how to turn the pumps on and as the conversation unfolded it became clear that with a busy lifestyle, being prepared for bushfire is far down the list of priorities despite the real risk awareness.

Awareness ~ Attitudes ~ Preparedness

(N = 348)	Very - Satisfactory	A little - Not at all	Don't know
How prepared do you think you are for bushfire?	73%	24%	2%
How prepared do you think others in your community are?	45%	37%	18%

(N = 348)	Yes	No	Undecided
Have you prepared a Bushfire Action Plan?	43%	56%	-
Do you plan to Stay & Defend?	64%	11%	22%

In the survey I asked how bushfire prepared landowners consider themselves to be in comparison to their immediate community.

Interestingly 73% of landowners consider themselves to be very-satisfactory prepared whereas they only perceive 45% of their local community to have the same level of preparedness. It's as if they consider their own property to be less at risk from bushfire than the rest of their local area or that they are more prepared for bushfire than everyone else.

This arguable relates to the difference between being mentally and practically prepared and this is very clearly reflected in less than half having prepared a bushfire action plan even though 64% of landowners who responded intend on staying and defending their property regardless of their level of preparedness.

Awareness ~ Attitudes ~ Preparedness

"The land used to be managed well by the Water Board before NPWS took over. It is now not managed at all increasing the risk to residences."

"I am aware of, though have not installed, sprinkler systems. Nor have I cleared vegetation close to residence."

"I have areas which need attention and I don't have the machinery or know how."

"Some landowners are irresponsible / poor managers and this puts our property at risk due to their negligence."



This brings up questions around the problem of when people with no or little bushfire experience decide to stay and defend their property thinking that they are prepared when in reality they are far from prepared mentally and/or practically and therefore panic at the last moment and leave late.

If people base this decision on the information they read from e.g. the RFS, local councils, and NPWS could it be argued that the literature available is confusing inexperienced people, as people get the impression that they are bushfire prepared because they have followed a simple step-by-step asset protection plan (keep gutters clear, remove fuel, mow the lawn, etc) but have little other fire fighting experience?

That is unless these steps are followed up by individual advice by experts on landholders' properties and basic fire fighting training.

Identified issues...

□ Money / Time / Priorities / Motivation

“Certainly in terms of volunteering to do things, it’s really difficult when you both work full-time and for me it’s the hours, there’s no way! I can’t even go to a CWA meeting. You know, they’re just not designed for commuting working mummies, they are working for people who are around here. You know it’s... yeah! When you have a busy life... I could do something but it just has never happened. And that’s 4 ½ years! It’s pretty bad but hey priorities are priorities.”

□ Knowledge / Management ability / False sense of security

□ Training: Compulsory BF training / Women and fire

“To me, if somebody owns a property in the bush it should be compulsory as part of getting... being able to live there... to do a basic course – a fire fighter course. Whether they join the brigade or don’t, it’s given them new awareness instead of saying it’s a voluntary thing... it’s open to anybody. You don’t have to be a member of the bushfire fighters to do it.”

“Yeah, I think training should be compulsory. If you let people like me out as country farmers, I would personally have us lined up and shot if we were not licensed to turn on pumps and do stuff like that.”

To sum up the points that I’ve presented here, money, time, priorities and attitudes are very significant in understanding landowners’ level of engagement with bushfire management in NRL.

What should also be considered is people’s level of knowledge of bushfire, such as fire behaviour locally, rules and regulations, who to contact, their actual management ability in relation to this knowledge and again the potential false sense of security that lack of concrete bushfire experience can result in.

All of this is related to training – training that arguably could quite easily be given to these landowners if the legislation was in place. My research is highlighting a need for two types of training.

One is the need for compulsory basic fire fighting training for all landowners in NRL. This has been emphasised by both long-term and newer landowners where people say ‘look, it should be compulsory. Everyone who buys a property here should know the basics’. They are not saying that people have to get involved with their local fire brigade, they are arguing that people should attend the basic fire fighting course, so they have a basic understanding of fire.

The other is a need for training that’s specifically aimed at women. There seems to be a much higher level of apathy or denial or feeling of helplessness amongst women in these areas.

Certainly this operates on different levels. You have the women who feel intimidated by showing up to the local fire shed and asking what they feel are ignorant personal questions.

Another level is the time pressure that many women have today with full-time jobs as they are juggling the traditional responsibilities of motherhood .

At the same time there is still this real sense that bushfire is men’s business – the husband knows what to do. Well, the problem there is that the husband very often is either away working in the city or fighting the fire somewhere else!

Food for thought...

Landholder: *"We need to have some 'Women preparedness classes'."*

Interviewer: *"That's actually been trialled in South Australia and they were successful but it never went further than the trial, as far as I'm aware."*

Landholder: *"I'm not surprised. It probably occurred more directly, more immediately after the last batch of bushfires. The money dries up. The sympathy, emphasis and focus go to 'Oh no, we're running out of electricity, water and some other much more urgent...' whatever the newspaper headline is for the day. Give me an immediate political response. We always call it the 'Daily Telegraph moment of truth'. What's the driver behind this according to the Daily Telegraph? Is this a policy announcement in response to the Daily Telegraph? Are we amending a policy in response to the Daily Telegraph? Or how will this policy be read by the Daily Telegraph? Because that is Australia. Public. General. ... What we need is a couple of women and children burnt to death in the next bushfire. I'm so sorry but it's the tragic truth. We need the picture of the woman running down the road with kangaroos fleeing with her, hair on fire, for it to be that Daily Telegraph policy. 'Women abandoned!' Unfortunately it's an incredible driver of policy here because we have no commitment politically to the long term."*

I would like to finish off with a quote from one of my interviews (and I won't read it out) that touch on many of the issues that I've highlighted in this talk and also sits quite awkwardly in the wake of the recent bushfire tragedy in Victoria.

It asks some key questions about gender needs, policy initiatives and the need for long-term visions when it comes to living with fire on the land in Australia.

Thank you.