



# Firefighting the ‘paradox of place’

The risks and dilemmas associated with knowing the fire landscape

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## The key research questions

1. How are ideas about landscape transferrable, to provide firefighters with knowledge to assist their firework practice?
2. What role do experiences, observations and stories (individual and collective) play with respect to social-ecological memory in contributing to understanding landscape and fire for firefighters?
3. How do firefighters encountering diverse landscapes gather information, understand, and relate to place?

*Today's presentations will focus on this aspect of my research*

## **4. How can the place of fire (local or afar) affect a firefighter's firework?**

5. What is the 'place' of adaptive decision making within the hierarchal command and control of firefighting?

**Firefighters face dangerous situations and there have been a number of tragedies involving firefighters in Australia for example:**

- Ash Wednesday Fires, Victoria 1983
- Linton Fire, Victoria 1998

**And most recently in the USA, 19 firefighters 'Hot Shots' lost their lives in Yarnell, Arizona, July 2013**

**Reported 'near misses' for example:**

- New Zealand Crew, Great Divide Fire, Victoria 2006,
- North Warrandyte CFA Tanker 1, Black Saturday Fires, Victoria 2009

## Main study areas ▲

Tasmania – 18 firefighters

ACT Canberra – 17 firefighters

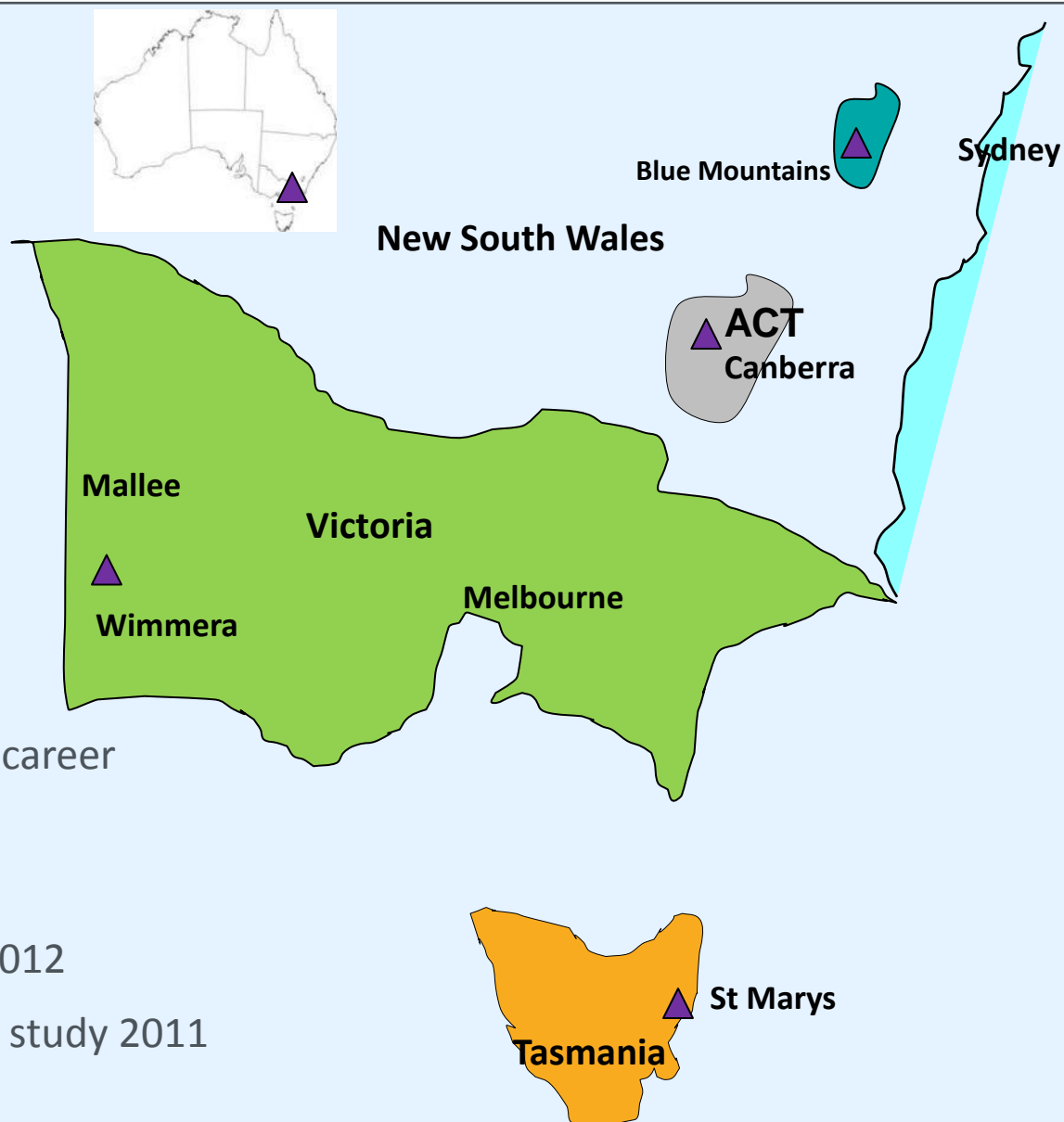
Victoria – 28 firefighters

NSW – 1 firefighter Blue Mountains  
interview via telephone

48 volunteers, 12 seasonal, 8 career  
13 females, 55 males

63 firefighters – main study 2012

5 Victorian firefighters – pilot study 2011





# Qualitative research

## Semi-structured in-depth interviews

### 11 group interviews

(average 4 participants , interview time averaged 100 minutes)

### 21 individual interviews

(interview time averaged 70 minutes)

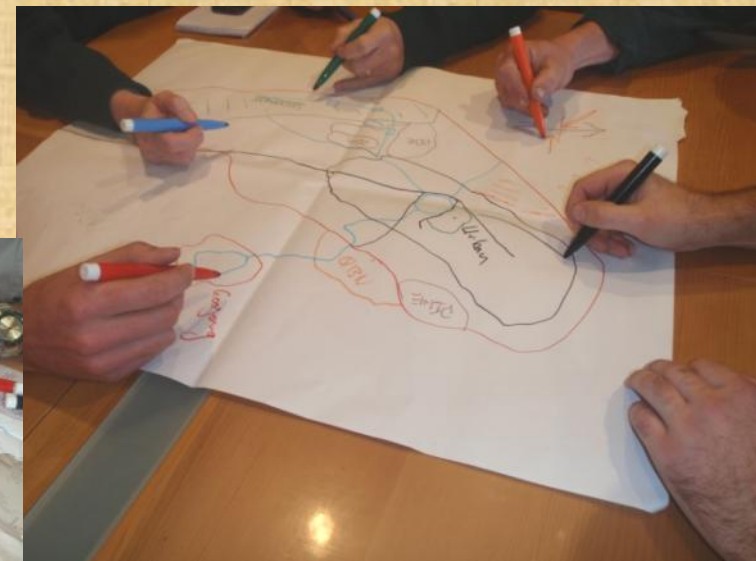
Questions along topic lines

+

Narrative approach

+

Making a mud map – a sketch map of  
their local area



**So what happens when firefighters fight fires locally and when they are sent to other places?**





## What is the paradox?

**The firefighter attending a fire in the local area would intuitively seem a safer proposal, then when deployed to a distant fire, surrounded by many unknown hazards and unfamiliar terrain and fire behaviour.**

**...However**

## Firstly what is Local knowledge?

Local knowledge is the **understanding of** and **connection to place** developed through practical experience and observations **over time**. Extended periods residing, working or recreating in place can develop a familiarity and **rich knowledge of surrounds** (see for example, Casey 1996; Geertz 1983; Sinclair & Walker 1999).





# Fighting a local fire local knowledge ...some implications

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*“At that time the incident controller did the initial interview, then his property was actually under threat, so he took himself out ...**he had to go and save his own house**”*  
[Annette, seasonal Victoria]





**When a fire breaks out, the local volunteer brigade will likely be first on scene. The pressure upon the first responders to control the fire is high.**



# Fighting a local fire – first responders – it's all in the timing

*“Because you are first responder, your **adrenalin is up**, you are a bit more pumped up ... So, your **thought processes are different for the first response**. When you go away, the fire may not be any different, but you don't have that adrenalin rush, right, you are going there in an **orderly fashion**, and you get a briefing and told you are going to go and do this”* [Barry, volunteer Victoria].



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*“I think it seems the bigger the fire the more **chaos** actually, not saying it is bad but because what happens is the normal brigade responds and they say they need assistance. And, so they might bring in the neighbouring brigade and it sort of, just **keeps building** from there as the fire changes and it gets bigger, gets away, or the wind changes. **I was probably critical first up** that it was so **ad hoc** but since then I have been on a couple more and **I don't think there is really any other way** to staff it first up.”* [Charles, volunteer Tasmania]





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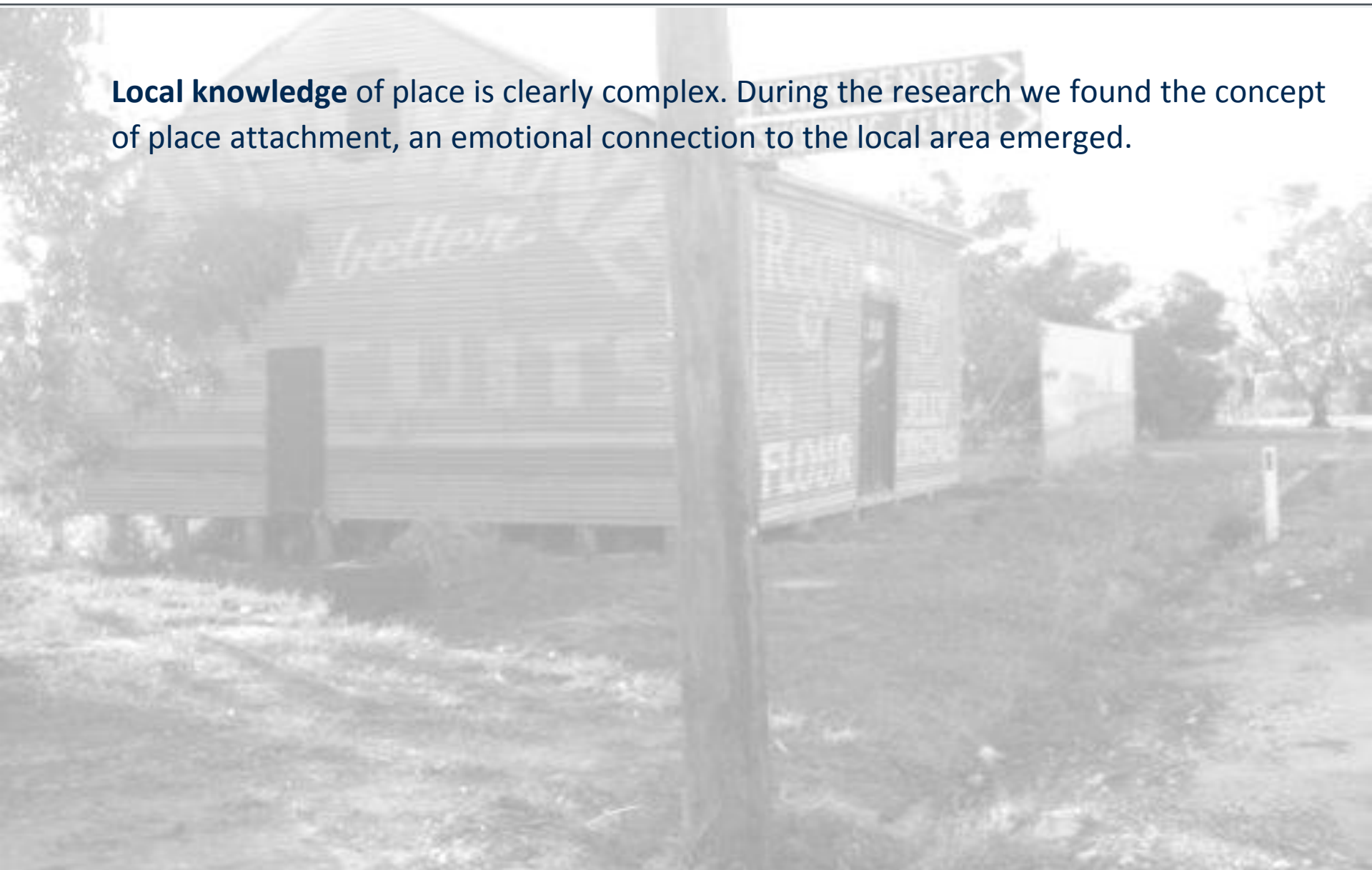
*“...if you arrive two hours into it, and there are guys and **no one in control** and no clear lines, and if they start saying ‘you are going down there’, **I think ‘no way’!**”* [Garry, seasonal ACT]

*“...someone has got to **take charge** of that incident, like straight away or it just gets higgledy piggledy”* [Ryan, volunteer Victoria].



# Fighting a local fire – what has emerged?

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The research on **place-protective behaviour** (Stedman 2002) describes a predisposition to and longer-term protection values, enacted by community members. Furthermore, Scannell and Gifford (2010) postulate that, 'Surely, one's **connections to a place** [or lack thereof] influences one's **willingness to protect it**' (p. 289).



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Our study finds firefighters' actions are closely related to a what we describe as a '**responsibility to place**', which operates in ways that are current, active, infused with emotion and a responsibility for the physical, social and cultural aspects, connected to 'their place'. Firefighters are using split second decision-making, and responding to a '**local knowing**' of their place. Therefore, actions are not always anticipated and often spontaneous.

**The pressure to respond quickly, straddles the need to operate safely and find the time to assess all conditions at the fireground.**

**Firefighters described finding or ‘making time’.**



# Fighting a distant fire – fighting time

*“You have to take a step back and **put the fire on hold**, until you can put a handle on your resources and what you’ve got, where the hell are they all [crews]. But if you let it get at you, well you can go into **panic mode**...”* [Evan, volunteer Tasmania].

Harry reiterates Evan’s experience: *“**Take a step back**, take a look at it and get things under control, which is **not easy at times**”* [Harry, volunteer Tasmania].





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The firefighter in-charge must push back against the expectation of the crews to rush into the fire ... a ***‘rush to wait’***



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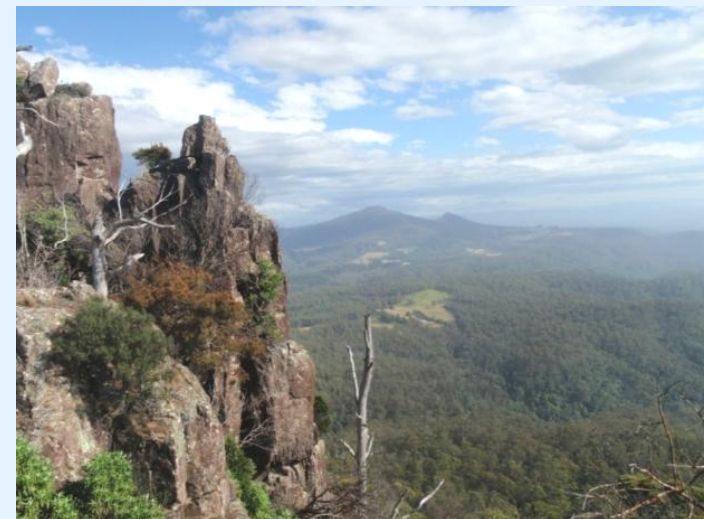
The firefighter in-charge must push back, as Jake explained:

*“Once you hold that rank, you think these **people’s lives and safety is really in my hands**. I do what I tell them to do and if make a bad decision I could really hurt them, so sometimes I am very cautious ... I can see why people in the past were reluctant to let me go off [freelance] and do what I wanted, because they were being cautious to protect me. **At the time, I did not appreciate it**. When you have that responsibility for others then it really dawns on you, how big it is and **now I understand** why. I am **far more cautious** then I use to be”* [Jake, volunteer ACT].



# Fighting a distant fire – detachment

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*'Well I didn't know whether the fire was half a mile that way or five miles that way, really. We were told we were **there to do a job**. So you don't sort of question really, where the fire is. You question what the job is that you have got to do'* [Alan, volunteer Tasmania].





# Fighting a distant fire – seeking reliable local knowledge

**Through experience, firefighters learn to find local knowledge  
– there are two aspects**



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Through experience, firefighters learn to find local knowledge – two aspects

## 1 Beware

*“...just because someone has been around for a while doesn’t mean they have the valid experience and knowledge base there...well **maybe old Joe doesn’t quite know**, he just happens to be around for a while.”* [Liam, seasonal ACT]

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## 2 Be aware

*"When I went to America ... I had to size the situation up and there was a **couple of bear researchers** that I got as my guides, they knew their way around, they didn't know much about fire behaviour, but they knew who was who in the locals, I had them to assist."* [Adam, seasonal Victoria]

*"Grab one of **those older blokes, the guy who is driving the water cart, the old forester.**"* [Eddie, seasonal ACT]

*"The 2 **dozer drivers** out working with us, they were local blokes and they were able to provide us with a lot of information and it was handy."* [Barry, volunteer Victoria]

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***"So you very quickly work out who the people are that are experienced, and sometimes they are not the staff that work for the wildfire management branch, sometimes they are the contractors. ... generally it is conversations, you start to talk to people and you watch how others interact"*** [Shane, seasonal ACT].



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## Distant fire

- Fire burning hours or days – command structure set and ordered



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- Decision-making – memory, intuitive (quicker)
- Place – connection to physical, social and cultural assets, 'local knowing' of place and likely impacts, risk in the drive to overdo firework because of a 'responsibility to place'

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- Decision-making – cautious, directed (slower)
- Place – disconnection to community and place, risk in the unknown surrounds, requires experience to find reliable local information and patience to wait for orders and follow procedures



# Local knowledge fire danger matrix

<i>Local knowledge Firefighter at the fireground</i>		High	<div><div>Check – Go</div><div>Monitor and use local knowledge to move quickly and more adaptively at the fireground to assist firework</div><div>1</div></div>	<div><div>Check – Caution</div><div>Monitor and use local knowledge to inform firework and options for safer areas for emergency</div><div>3</div></div>
		Low	<div><div>Check – Caution</div><div>Little local knowledge, proceed with caution, develop situational awareness</div><div>2</div></div>	<div><div>Check – Stop</div><div>Little local knowledge, stay high alert, proceed cautiously and find out about safer areas for emergency</div><div>4</div></div>
			Low	High
			<i>Fire Danger: scale, intensity</i>	

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**At a fire, local knowledge should assist firefighters**

**... this is what is expected to happen**



# Local knowledge/local knowing fire danger matrix

<i>Local knowledge / Local Knowing Firefighter's responsibility to place</i>	High	<b>Check – Caution</b> Fire Agencies : check the risk for local firefighters over- doing firework 1	<b>Check – Caution – Stop</b> Fire Agencies: check the risk for local firefighters compelled to fight on 3
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...this is what we found

**The complexity of 'place' in fire training and deployment needs to account for the dilemmas identified in this study:**

- to find the balance between local knowledge, 'local knowing' adaptive decision making and risk.
- to check issues of local firefighters arriving ahead of order and the pressure to *freelance*, take risks and overdo firework; and
- to reaffirm with deployed firefighters to pace firework, recognise their limitations and to seek and ascertain local knowledge.

**These are all steps towards fighting the paradox of place**

# Firefighting the paradox of place

The risks and dilemmas associated with knowing the fire landscape



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Thank you

Questions?

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