Community preparedness and responses to the 2017 NSW bushfires

Research forum / 2018

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Sir Ivan Fire
Taliesen Road Fire
Research themes

Theme 1: Information and warnings

• How effective were warnings delivered to the community? How did people respond?
• Did warnings assist people to reduce risk to agricultural assets?
• How did people respond to Catastrophic fire danger messages?
• What information did people seek relating to the fires and how did they obtain it?
• What were the drivers and motivators for those who sought to enter/re-enter fire grounds?

Theme 2: Planning and preparation

• How did people perceive the risk, particularly in farming communities?
• What influence did previous fire history/experience have on planning, preparedness and decisions?
• How did people respond to the fires? How did they prioritise protective responses?
• How did people perceive the risk to and value of agricultural assets relative to homes?
Research methods

Semi-structured interviews:
- 113 interviews (with 146 people):
  - Curandooley (36)
  - Carwoola (38)
  - Sir Ivan (39)
- 2100 pages of transcript
- Qualitative data analysis – general inductive approach (Thomas 2006) using NVivo

Online survey:
- 549 people threatened or affected by bushfires in NSW in 2017
- 61% female
- 44% house on residential block; 37% hobby farm or small acreage; 16% large farm
- 29% NSW RFS members
Findings

Catastrophic Fire Danger Warnings:

- Easy to understand (85%), timely (83%) and useful (78%)

Responses to Catastrophic Fire Danger warning (%)
Findings

Catastrophic Fire Danger Warnings:

- Warnings of Catastrophic Fire Danger appear to increase awareness and attentiveness
- **BUT** people are unlikely to leave until there is a fire – belief that advice is impractical
- People underestimate risk posed by fires burning under non-Catastrophic conditions

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<table>
<thead>
<tr>
<th>FIRE DANGER RATING</th>
<th>WHAT YOU SHOULD DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>CATASTROPHIC</td>
<td>Leave bush fire prone areas the night before or early in the day – do not just wait and see what happens. Make a decision about when you will leave, where you will go, how you will get there and when you will return. Homes are not designed to withstand fires in catastrophic conditions so you should leave early.</td>
</tr>
<tr>
<td>EXTREME</td>
<td>Leaving early is the safest option for your survival. If you are not prepared to the highest level, leave early in the day. Only consider staying if you are prepared to the highest level – such as your home is specially designed, constructed or modified, and situated to withstand a fire, you are well prepared and can actively defend it if a fire starts.</td>
</tr>
<tr>
<td>SEVERE</td>
<td>Leaving early is the safest option for your survival. Well prepared homes that are actively defended can provide safety – but only stay if you are physically and mentally prepared to defend in these conditions.</td>
</tr>
<tr>
<td>VERY HIGH</td>
<td>Review your <em>Bush Fire Survival Plan</em> with your family.</td>
</tr>
<tr>
<td>HIGH</td>
<td>Keep yourself informed and monitor conditions. Be ready to act if necessary.</td>
</tr>
<tr>
<td>LOW MODERATE</td>
<td></td>
</tr>
</tbody>
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Credit: Tasmania Fire Service
Findings

Emergency warnings:

- Most people found emergency warnings easy to understand and useful
- Slightly fewer, but still a majority, found them timely, up to date and sufficiently localised

<table>
<thead>
<tr>
<th></th>
<th>Timely</th>
<th>Up to date</th>
<th>Easy to understand</th>
<th>Sufficiently localised</th>
<th>Useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landline telephone</td>
<td>68% (n=34)</td>
<td>72% (n=36)</td>
<td>78% (n=39)</td>
<td>53% (n=26)</td>
<td>78% (n=40)</td>
</tr>
<tr>
<td>SMS</td>
<td>66% (n=78)</td>
<td>66% (n=78)</td>
<td>86% (n=105)</td>
<td>64% (n=76)</td>
<td>67% (n=78)</td>
</tr>
<tr>
<td>Radio</td>
<td>76% (n=56)</td>
<td>64% (n=47)</td>
<td>87% (n=65)</td>
<td>73% (n=54)</td>
<td>82% (n=61)</td>
</tr>
<tr>
<td>Fires Near Me</td>
<td>NA</td>
<td>66% (n=130)</td>
<td>88% (n=172)</td>
<td>76% (n=148)</td>
<td>82% (n=159)</td>
</tr>
<tr>
<td>RFS updates, interviews, media conferences</td>
<td>71% (n=111)</td>
<td>68% (n=108)</td>
<td>84% (132)</td>
<td>69% (n=109)</td>
<td>73% (n=114)</td>
</tr>
</tbody>
</table>

Survey respondents’ assessments of official warnings
Emergency warnings:

- In each of the three fires studied, mobile phone reception issues (pre-existing and caused by fire) prevented people from receiving warnings and information.

- Tendency for people to go and look at the fire for themselves – particularly when communication is impeded.

- Direct observation helped people to ready themselves to stay and defend, or confirmed the need to leave:

  ‘I was just looking. I had the Fires Near You [sic] app, watching it, keeping updated, going up to the top of the hill, driving down to the fire zone, just keeping an idea of where it is and what’s happening’ (Cassilis – Sir Ivan)

  ‘I actually saw the smoke when the fire first started. So I smelt the smoke and I drove up to where the fire started... and noticed that it was going to be a dangerous fire’ (Mt Fairy – Currandooley)
Findings

Reasons for entering ‘fire grounds’:

• 40% of survey respondents not at home when they found out about the fire. Of these, 71% attempted to return.

• Drivers for returning included:
  • To protect houses and property
  • To rescue or assist vulnerable people
  • To protect or rescue animals

• Criticism of roadblocks, particularly among those who had planned and prepared to defend.

• Backroads and gates through private property used to return. Belief that some were exposed to more danger than if they had passed through roadblock.
Conclusions

• Warnings were received and understood but not necessarily acted upon in the ways emergency services intended

• Tendency for people to observe fire for themselves: opportunities for emergency services (field liaison) to engage with people at a time when they are seeking and receptive to information and advice

• Unintended consequence of the additional ‘Catastrophic’ Fire Danger Rating has been to devalue lower levels of fire danger? Need to more clearly communicate risk posed by fires burning under non-Catastrophic Fire Danger conditions

• In any case, many do not intend to leave on days of Catastrophic fire danger before there is a fire, and many are committed to defending

• Perennial issue of roadblocks: is there a way to accommodate those who insist on returning?
Acknowledgements

RFS:

• Anthony Clark
• Anthony Bradstreet
• Corey Philip
• Tim Carroll
• Tim Butcher
• Darren Marks
• Merryn Campbell
• Stephen Glassock
• Tony Jarrett
• James Morris
• Jacqueline Murphy
• Greg Allan
• Bradley Bourke

Others:

• Participants
• Mel Taylor (Macquarie)
• Carrie Wilkinson (UOW)
• Ville Santala (UOW)
• Christine Eriksen (UOW)
• Megan McCarthy (Macquarie)
• Julia Irwin (Macquarie)
• Chris Bearman (CQU)
• Mike Rumsewicz (BNHCRC)
• John Bates (BNHCRC)
• Nathan Maddock (BNHCRC)
• Leanne Beattie (BNHCRC)