

Community preparedness and responses to the 2017 NSW bushfires

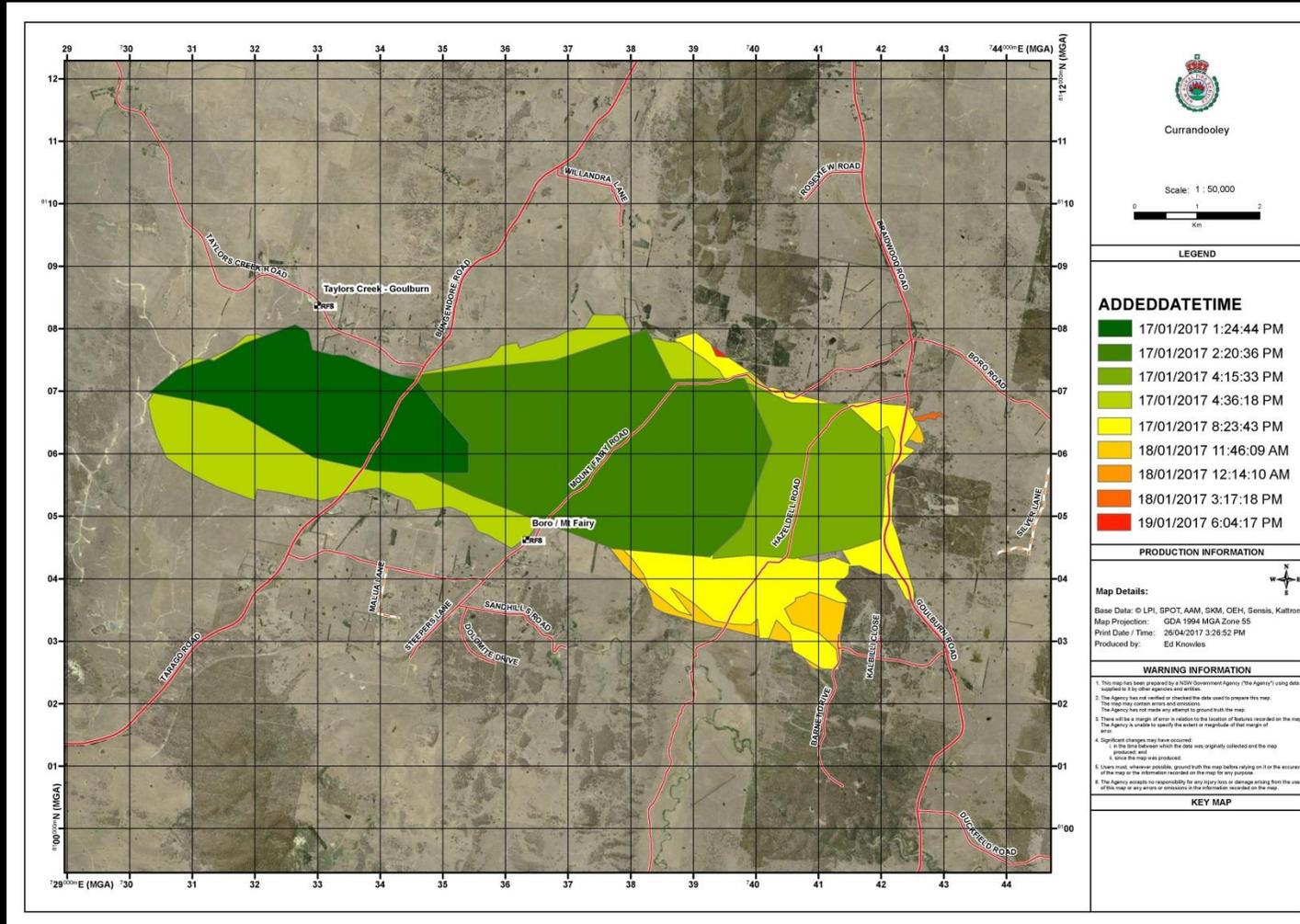
Research forum / **2018**

Dr Josh Whittaker / University of Wollongong

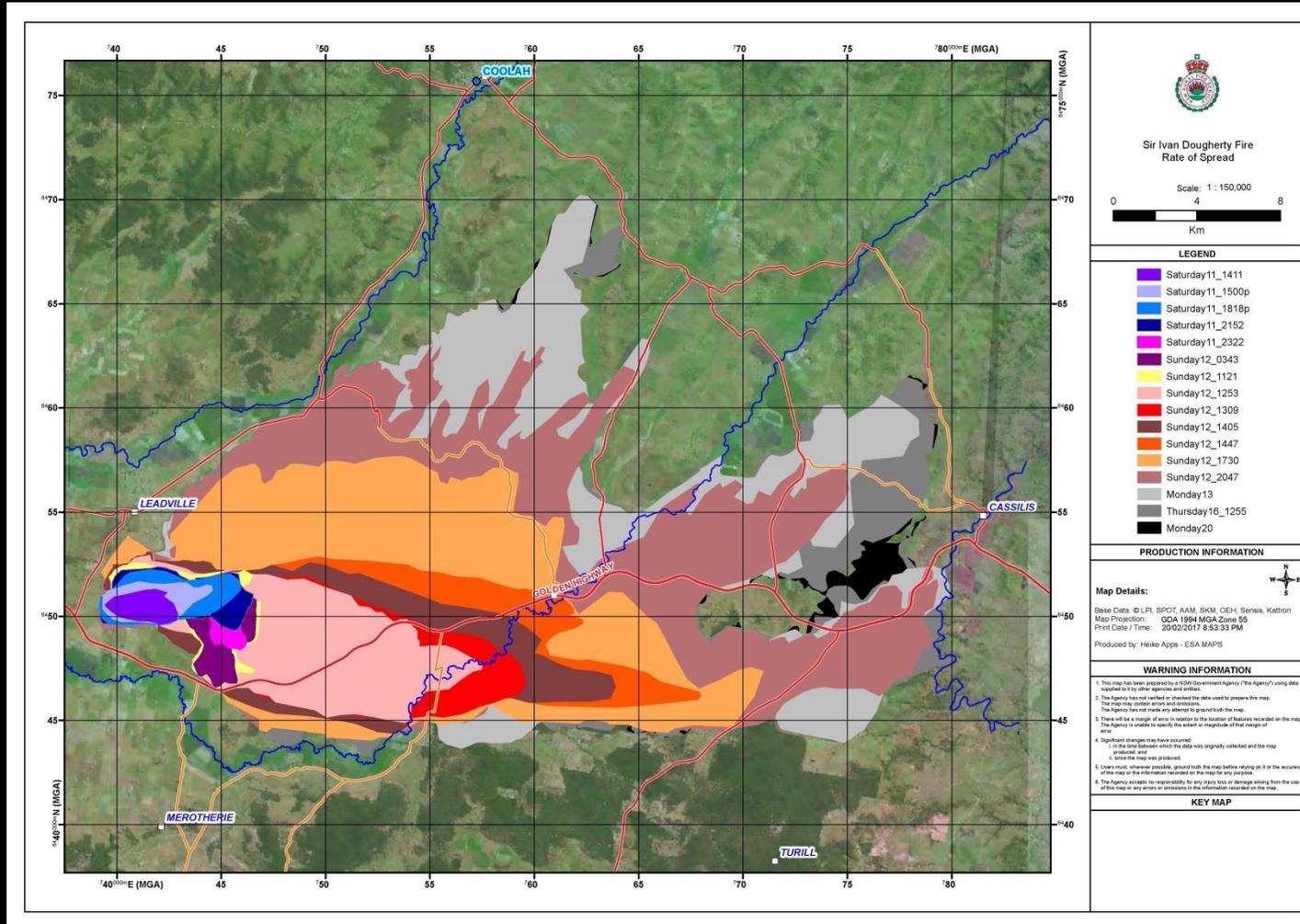
 @wjwhittaker



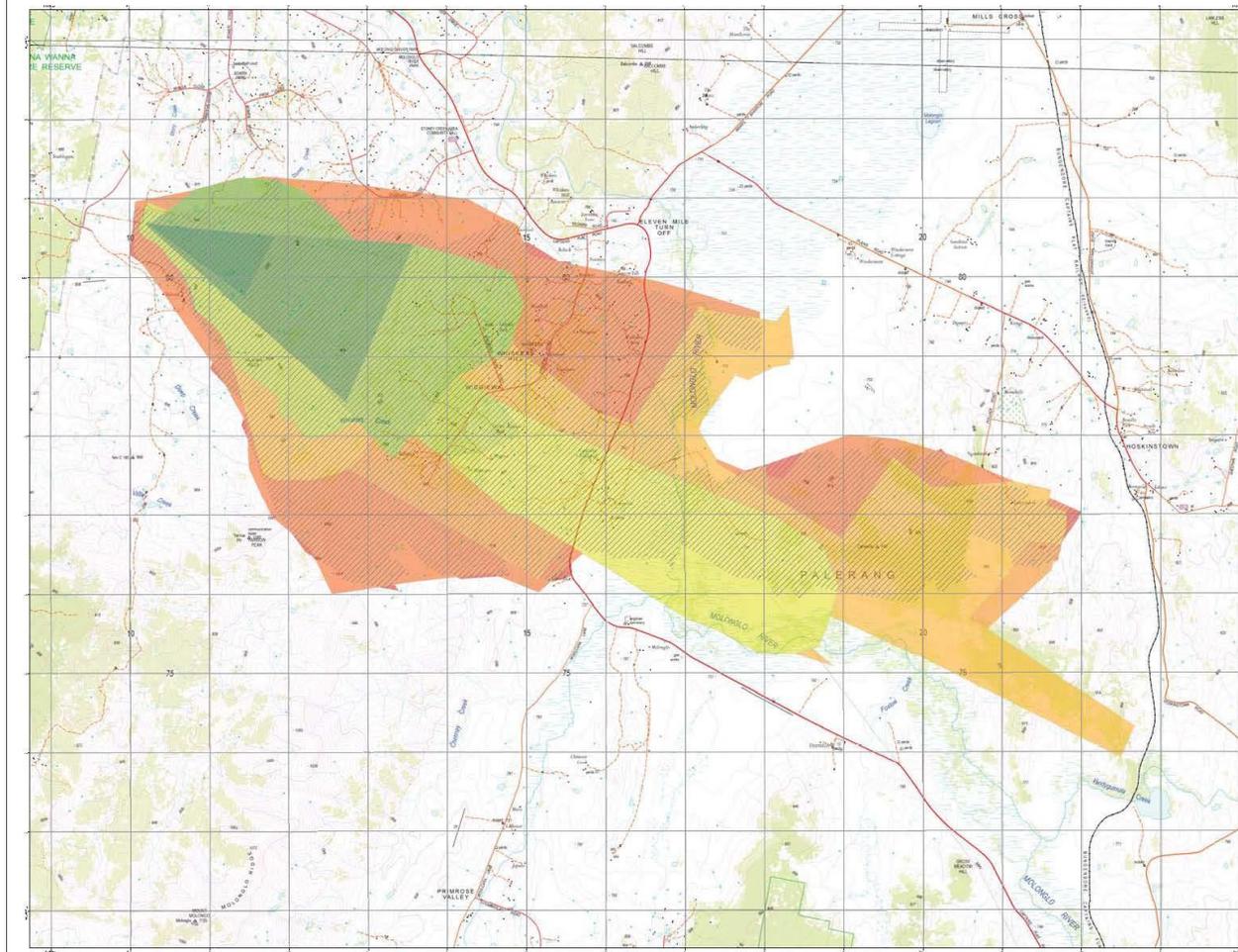
Currandooley Road Fire



Sir Ivan Fire

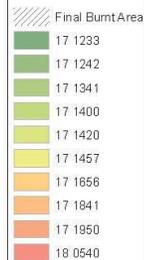


Taliesen Road Fire



Taliesin Fire
Progression Map
Scale 1:15,000

LEGEND



PRODUCTION INFORMATION

Map ID: 1711
Map Date: 17/12/2015
Map Author: DFE
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Map Date: 17/12/2015

WARNING INFORMATION

This map is a progression map and should not be used for fire management purposes. It is intended for information purposes only. The map is not a guarantee of accuracy and should not be used for legal purposes. The map is not a guarantee of accuracy and should not be used for legal purposes. The map is not a guarantee of accuracy and should not be used for legal purposes.

KEY MAP



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):
 - Currandooley (36)
 - Carwoola (38)
 - Sir Ivan (39)
- 2100 pages of transcript
- Qualitative data analysis – general inductive approach (Thomas 2006) using NVivo

Online survey:

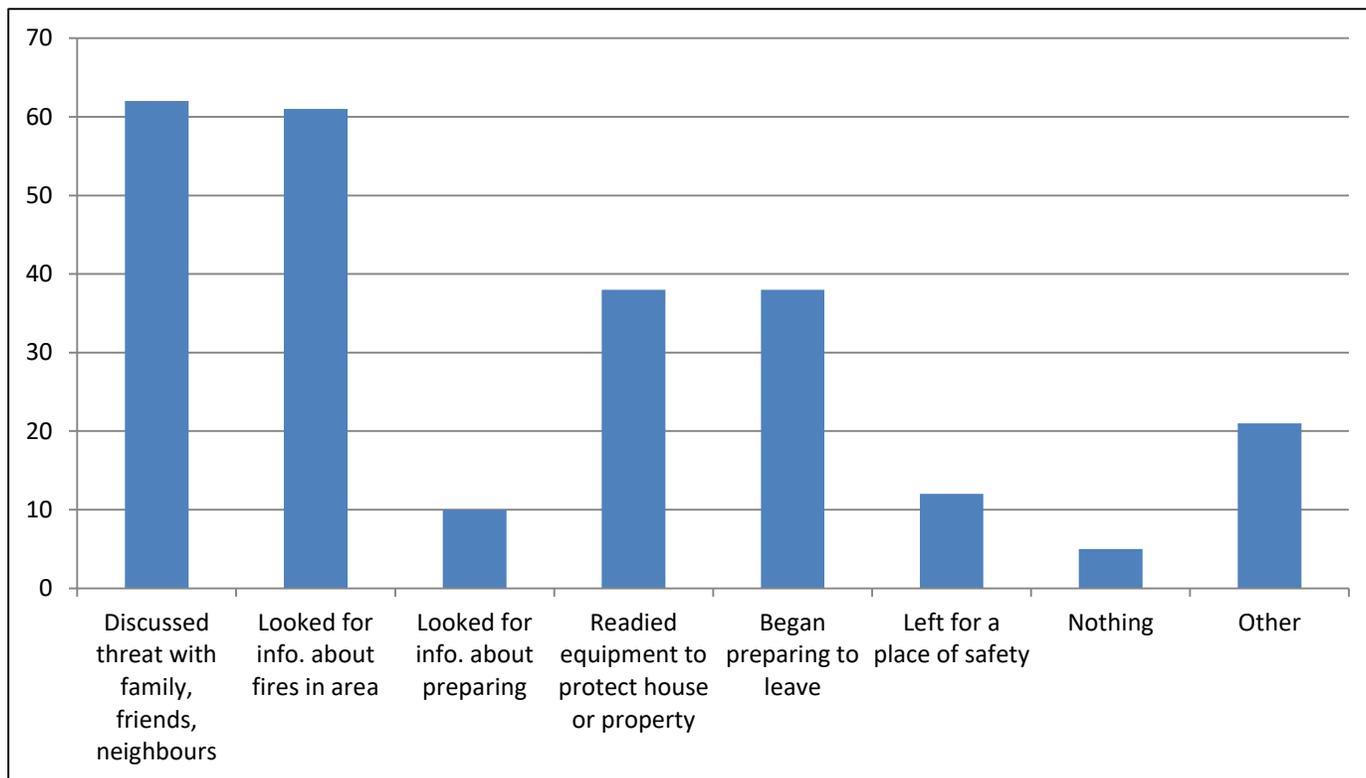
- 549 people threatened or affected by bushfires in NSW in 2017
- 61% female
- 44% house on residential block; 37% hobby farm or small acreage; 16% large farm
- 29% NSW RFS members



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:



Credit: Tasmania Fire Service

- 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 🔊

FIRE DANGER RATING	WHAT YOU SHOULD DO
<p style="text-align: center;">CATASTROPHIC</p>	<p>For your survival, leaving early is the only option.</p> <p style="border: 1px solid red; padding: 5px;">Leave bush fire prone areas the night before or early in the day – do not just wait and see what happens.</p> <p>Make a decision about when you will leave, where you will go, how you will get there and when you will return.</p> <p>Homes are not designed to withstand fires in catastrophic conditions so you should leave early.</p>
<p style="text-align: center;">EXTREME</p>	<p>Leaving early is the safest option for your survival.</p> <p style="border: 1px solid red; padding: 5px;">If you are not prepared to the highest level, leave early in the day.</p> <p>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.</p>
<p style="text-align: center;">SEVERE</p>	<p>Leaving early is the safest option for your survival.</p> <p>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.</p> <p style="border: 1px solid red; padding: 5px;">If you're not prepared, leave early in the day.</p>
<p style="text-align: center;">VERY HIGH</p>	<p>Review your Bush Fire Survival Plan with your family.</p>
<p style="text-align: center;">HIGH</p>	<p>Keep yourself informed and monitor conditions.</p>
<p style="text-align: center;">LOW MODERATE</p>	<p>Be ready to act if necessary.</p>

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

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

Survey respondents' assessments of official warnings

Findings

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)



Credit: Mudgee Guardian

Findings

Reasons for entering 'fire grounds':

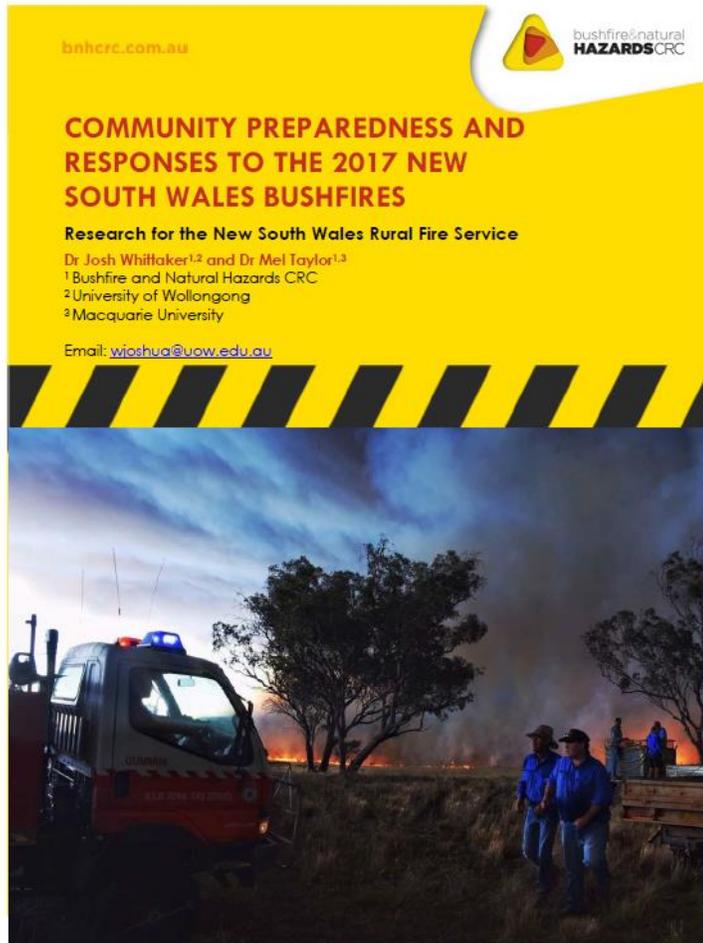
- 40% of survey respondents not at home when they found out about the fire. Of these, 71% attempted to return.
- Drivers for returning included:
 - To protect houses and property
 - To rescue or assist vulnerable people
 - To protect or rescue animals
- Criticism of roadblocks, particularly among those 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?

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