



Research informing regulation, industry and community

Why do houses burn down?

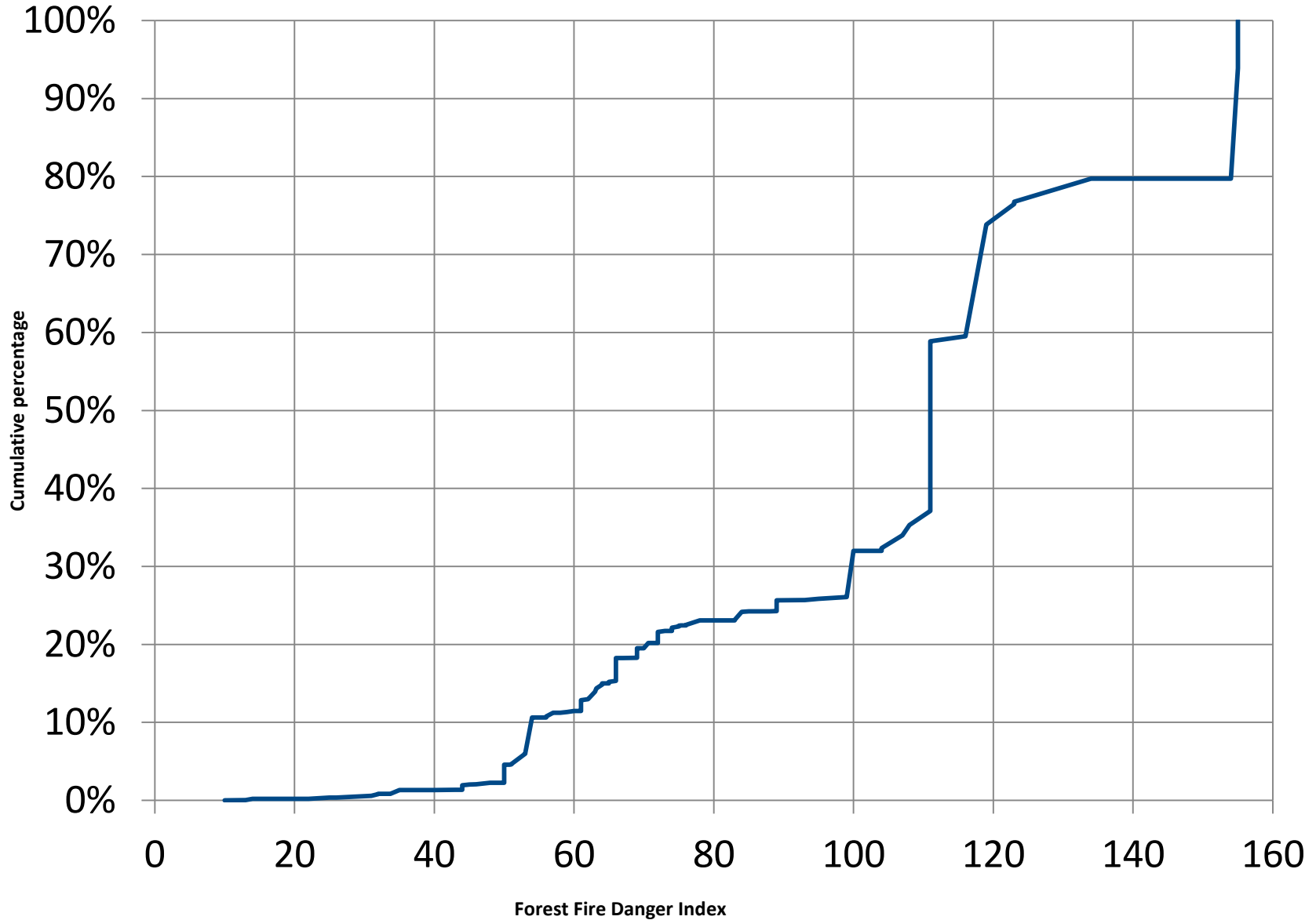
Justin Leonard | Research Leader – Bushfire Urban Design

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House Loss and Fire Weather



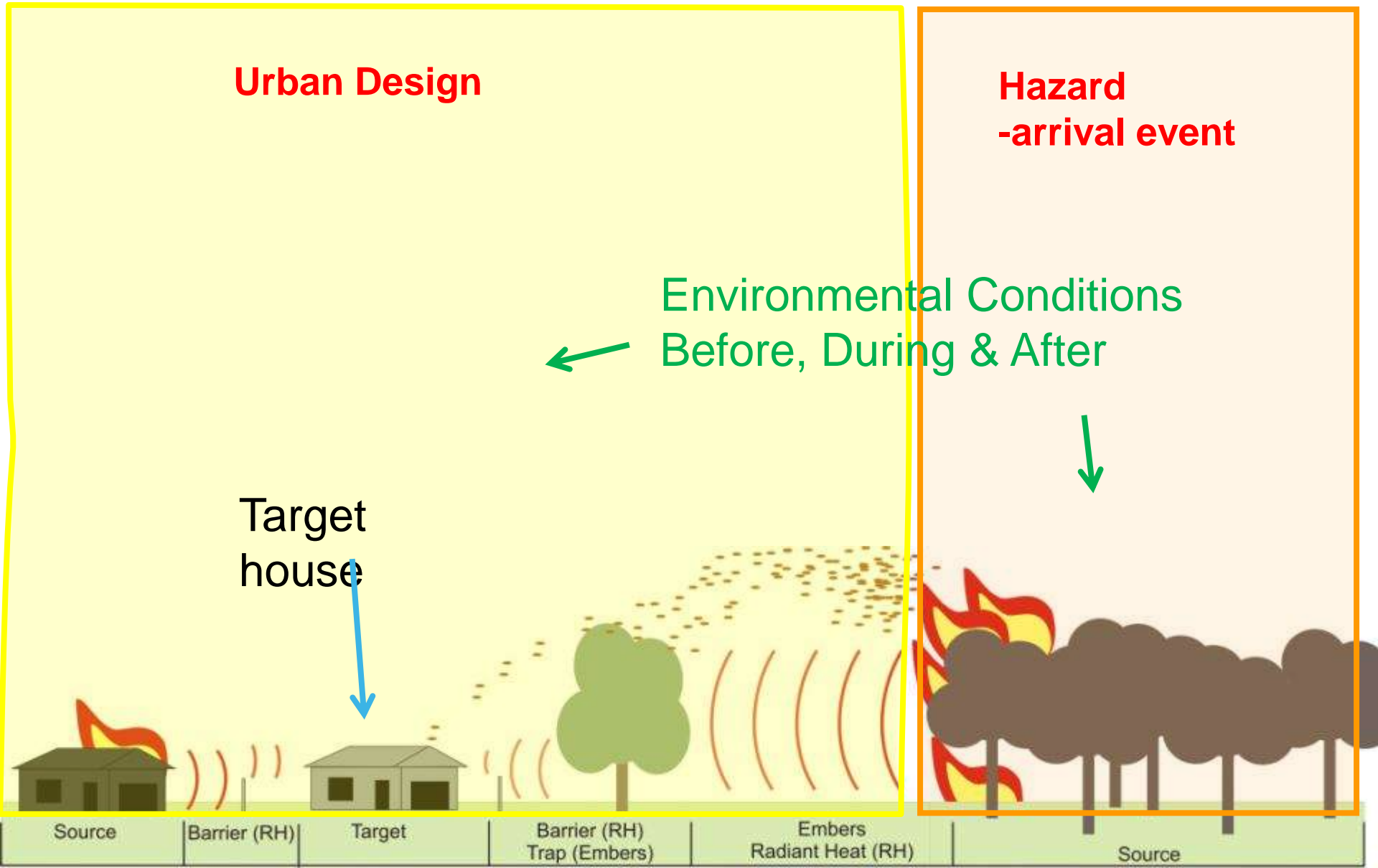
The urban interface scene

Urban Design

**Hazard
-arrival event**

Environmental Conditions
Before, During & After

Target
house



Source

Barrier (RH)

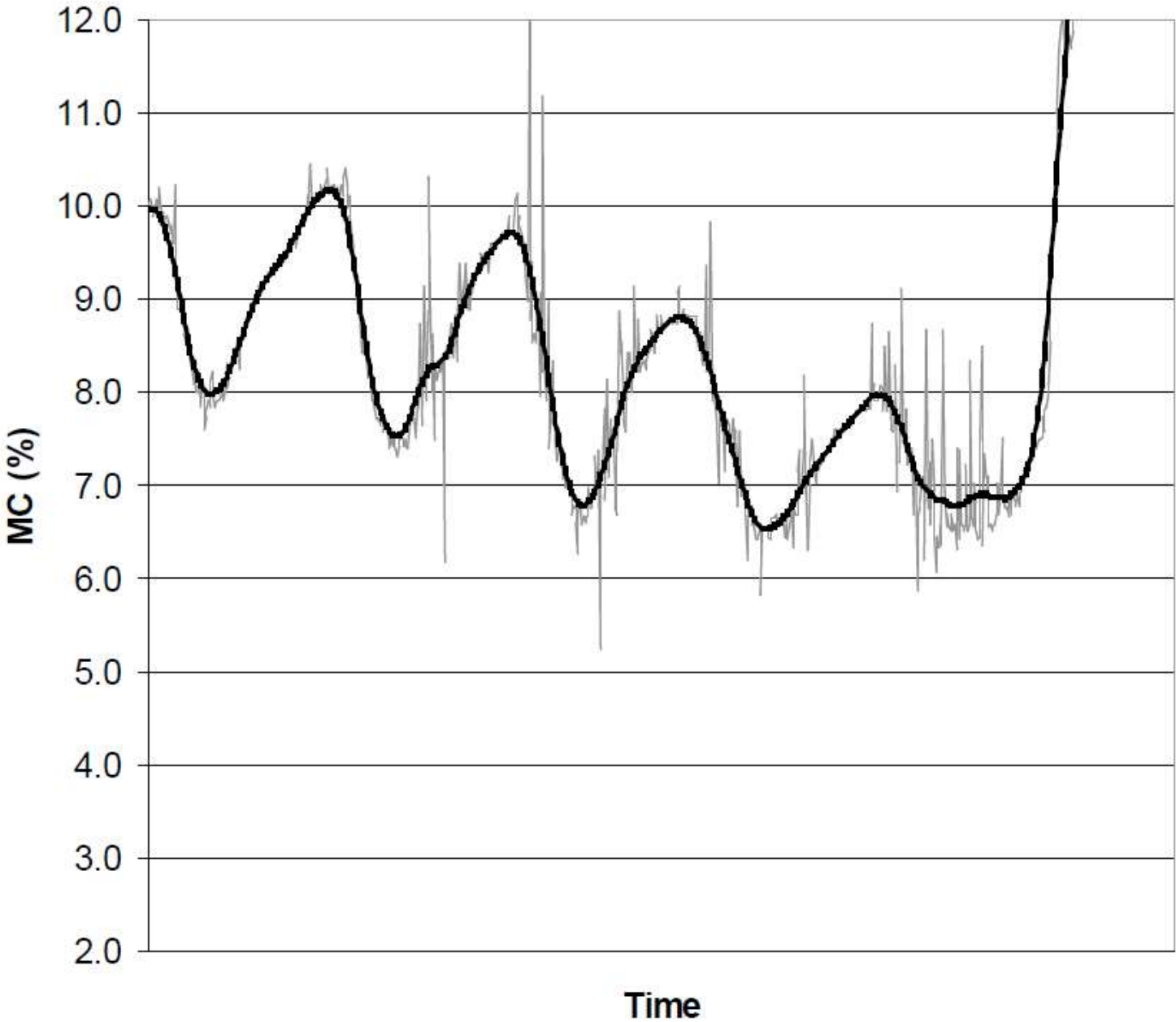
Target

Barrier (RH)
Trap (Embers)

Embers
Radiant Heat (RH)

Source

— MC raw — MC smooth



Interface fuels



Photo: ESB ACT,

Observations: Malcolm Gill

Stage two – fire spread due to urban elements



Photo: ESB ACT



Photo: Malcolm Gill



Wind damages







Openings

Embers attack on door



Openings

Embers attack on window

Opening

Typical unprotected vent,
a potential ember entry point





Common entry point
for embers













**Brush-wood
fence impact on
houses**









Timber deck

Embers attack on stairs















































Suggested Ways Forward

- Community engagement around understanding & acceptance of unique risks
- Voluntary community guidelines to:
 - Improve Urban Layout
 - Improve building performance.
 - Define fire tolerant township landscapes.



- Enable fire to be used as a tool within the township.
- Maintain ongoing understanding and fire awareness
- Reduce potential for entrapment within the township

Measures covered in the Guideline

- **Building Siting and Separation**
- **Construction Requirements**
- **Water Supply**
- **Electricity Supply**
- **Gas Supply**
- **Landscaping, Maintenance & Access**
- **Private Bushfire Shelter**

Thank you

CSIRO

Justin Leonard
Bushfire Urban Design

t +61 3 9252 6353
e justin.leonard@csiro.au
w www.csiro.au

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www.csiro.au

