

House loss – A Spatial Challenge

Justin Leonard¹, Bob Leicester², Raphaelle Blanche³, Felix Lipkin⁴, Andrew J Sargeant⁵

1 Justin Leonard, CSIRO Sustainable Ecosystems, 37 Graham rd Highett Vic 3190. Email:Justin.Leonard@CSIRO.au

2 Bob Leicester, CSIRO Sustainable Ecosystems, 37 Graham rd Highett Vic 3190. Email:Bob.Leicester@CSIRO.au

3 Raphaelle Blanche, CSIRO Sustainable Ecosystems, 37 Graham rd Highett Vic 3190. Email:Raphaelle.Blanche@CSIRO.au

4 Felix Lipkin, CSIRO Sustainable Ecosystems, 37 Graham rd Highett Vic 3190. Email:Felix.Lipkin@CSIRO.au

5 Andrew J Sargeant, CSIRO Sustainable Ecosystems, 37 Graham rd Highett Vic 3190. Email:Andrew.Sargeant@CSIRO.au

One key observation from past bushfire research is that the spatial orientation of structures with their surrounds is fundamental in defining its chances of survival during unplanned bushfire events. A Bushfire CRC urban interface risk model relevant to Australia is now in its advanced stages of development. Its basis lies in defining the spatial relationships between the house and its surroundings and how these elements known behaviours participate in the bushfire event.

A survey approach which can effectively capture this information and be implemented by fire agencies as a pre-fire or a post fire assessment tool will be presented. While the risk model will directly utilise the surveyed data and provide guidance as to the most effective risk mitigation strategies whether they be fuel modification, structural enhancements, strategic barriers, etc.

Key Words

Bushfire, urban design, urban interface, urban planning, risk model, site assessment