

Assessing an urban interface zone for compliance with bushfire protection measures

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During every Australian summer the combination of climate, topography and vegetation make the south-east region of the continent one of the most fire prone areas in the world. The loss of life combined with the damage caused to land and property results in a heavy cost to the community. The destruction is particularly evident in the urban interface where forested areas are in close proximity to residential areas. This area offers aesthetically appealing surrounds for people to live, however the environment which draws people to these locations also presents a potential threat to lives and property. Therefore, there is an increasing reliance on fire agencies and planners to provide a level of protection in these areas. The existence of Bushfire Protection Measures (BPM's) are designed to provide a level of protection for residents, fire-fighters and houses in Bushfire Prone Areas (BPA's)

This paper details the development of a Bushfire Protection Measure Tool used to assess if a bushfire-prone urban interface area complies with planning and building guidelines. The criteria for compliance are outlined in documents such as the Planning for Bushfire Protection Guide (RFS, 2006) and the Australian Standard: Construction of Buildings in Bushfire Prone Areas (AS3959:1999) (Standards Australia, 2001)

The case study area is the Canberra suburb of Duffy, which experienced significant house loss during the 2003 fires. A spatial database was developed for the study area including buildings, fences, roads, water supply, vegetation and terrain data. The tool assesses which houses are accessible for fire fighting vehicles, if an adequate water supply and sufficient separation zone exist and which houses are required to be built to construction levels. From this analysis an assessment can be made of the level of compliance of an urban interface area with respect to each bushfire protection measure. The development and application of this tool form part of a broader study on the benefit of implementing bushfire protection measures to urban interface areas, using a neighbourhood-level bushfire risk assessment model.