

Building in bushfire prone area

Information resources



Overview

A combination of different strategies listed here after should be considered for bushfire protection:

- Planning and landscaping – both from a regulatory and non-regulatory perspective, and also both at a larger scale (suburb or subdivision) and then at the individual property level.
- Building design and material
- Community awareness and education

There is a wealth of information on these individual strategies; however there is little information on the effective balance of these strategies or integration with broader building requirements and expectations. Please find here after some information available via weblinks provided:

For a general overview please see:

- The guide to regulatory framework release by Victorian government: A guide to building in Victoria after bushfires
http://www.buildingcommission.com.au/resources/documents/guide_to_building_after_bushfires_March10.pdf
- Information on risk from CFA <http://www.cfa.vic.gov.au/residents/building/risk.htm>

Planning and Landscaping

Planning and landscaping have to be consider at both a larger scale (suburb or subdivision) and then at the individual property level. We recommend considering both regulatory compliance as well as other voluntary design and maintenance options.

If you are living in a bushfire prone area in Victoria, the Wildfire Management Overlay (WMO) will apply and places control on buildings and works associated with specified land uses. (Note: there has been discussion regarding a possible exemption for some planning controls, so please contact your local council for more information – see also the guide to building in Victoria after bushfires).

The WMO process provides a set of minimum requirements for site **risk assessment, effective house siting, defining defensible space, vegetation management, access, and water supply.**

For guidelines please see the following information on the CFA website:

http://www.cfa.vic.gov.au/documents/wmo_applicants_kit.pdf

These measures can be considered in synergy with other efforts to manage structural exposure to the effects of the bushfire. Other measures include:

- use of strategic radiant heat barriers
- managing the distance or exposure to other structures
- managing non-vegetative combustible elements around the home e.g. vehicles, stored materials, combustible fencing...
- considering local climate and fire weather potential

In addition to previous links the CFA website contains the following references:

[Managing Vegetation Around Your Home](#)

[Property Bushfire Preparation and Vegetation Management](#) case study

[Example planning report](#)

Building design and material

According to the bushfire exposure, some requirements have to be considered to reduce the **vulnerability** of the house to **ember attack, radiant heat, flame**. Please refer to AS3959-2009 Building in bushfire prone area. The site assessment in AS3959-2009 provides effective way of assessing the exposure from continuous vegetative elements and the structure.
<http://www.standards.org.au/>

Please note that it does not consider the risk presented by managed vegetation and other non vegetative combustible elements around the structure.

In addition the occupant should consider the risk posed by **wind** (in certain area designing a house that exceeds the local wind loading requirements should be considered).

Note: these regulations provide a restricted range of prescriptive minimum requirements. We recommend the exploration of broader range of building options and increased risk mitigation effort in many areas of building design. The Building Code of Australia provides both prescriptive solutions as described (in AS3959-2009) as well as a process of performance based building alternatives.

Community awareness and education

Here after are elements to consider when building in bushfire prone area:

- Having a good understanding of the risk in your area
- Finding the right balance between life style and risk prevention
- Developing short and long term plans to protect your family from bushfire threat
- Maintenance and ongoing risk assessment of your property
- Participating in local bushfire knowledge networks

<http://www.cfa.vic.gov.au/residents/programs/index.htm>

Synergies with other building requirements

Bushfire is one of a large number of considerations to be taken into account when building a house. Bushfires protection measures can be effectively integrated into this broad suit of considerations, drawing on a large number of design synergies (eg. energy efficiency, water ,...).

The challenge is to effectively bring together planning, building measure and community awareness and integrate the life style expectation of the occupants.

Other useful information

Victorian Bushfire Reconstruction and Recovery Authority www.wewillrebuild.vic.gov.au

Clearing of native vegetation after bushfires www.dse.vic.gov.au

Guide to rebuilding in Victoria after bushfires www.buildingcommission.com.au

CFA Website <http://www.cfa.vic.gov.au>

Other information available in other State - NSW: building in bushfire prone area

http://www.bushfire.nsw.gov.au/dsp_content.cfm?cat_id=1009

More detailed information can be found on material and system performance:

People and property safety Program D Bushfire CRC – Justin Leonard

<http://www.bushfirecrc.com/research/d11/d1123.html>

CSIRO Sustainable Ecosystem – Bushfire research – Justin Leonard

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