

Bushfire Attack Levels



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MITCHAM

What is a BAL?

A BAL (Bushfire Attack Level) is a means of measuring a building's potential exposure to ember attack, radiant heat and direct flame contact, in a bushfire event. It is a basis for establishing the requirements for construction to improve protection of building elements from attack by bushfire.

The BAL takes into consideration a number of factors including the Fire Danger Index, the slope of land, types of surrounding vegetation and its proximity to any building.

There are six levels of bushfire attack under the Australian Standard 3959-2018, ranging from low to flame zone.

BAL - Low	There minor requirements that warrant specific construction requirements
BAL - 12.5	Ember Attack
BAL - 19	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux between 12.5 and 19 kW m ²
BAL - 29	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux between 19 and 29 kW m ²
BAL - 40	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux with the increased likelihood of exposure to flames
BAL - FZ	Direct exposure to flames from fire front in addition to heat flux and ember attack

[South Australian Property and Planning Atlas \(SAPPA\)](#) details the medium and high bushfire prone areas.

Planning Assessment Requirements

A CFS referral is only required in **high** bushfire prone areas for new dwellings and additions to dwellings consisting of habitable rooms. A BAL assessment report will be provided to the planning officer as part of the CFS referral.

Building Assessment Requirements

A medium bushfire prone area is deemed to have a BAL of 12.5 and accordingly a BAL assessment is not required within this area.

All residential buildings including additions and Class 10a outbuildings and decks, within 6 metres of a dwelling located within a high bushfire prone area, **must** have the site's BAL assessment provided as part of the supporting documentation for building rules assessment.

The BAL site assessment is commonly carried out by the CFS (Country Fire Service), however it can be carried out by, but not limited to, building surveyors, building designers & architects.

The Australian Standard and BCA (Building Code of Australia) specifies the requirements for the construction of residential buildings and required outbuildings for a particular bushfire attack level. Additional requirements are detailed in [Ministerial Building Standard MBS 008](#).

While the construction requirements contained in Australian Standard AS 3959-2018 and BCA will improve protection for new homes, as well as alterations and additions in bushfire-prone areas, it is important to note that it does not guarantee a building will survive a fire due to the unpredictable and often devastating nature of bushfire.

You can contact CFS Mount Barker on 8391 6077 for further information.

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