



CFS FACT SHEET

Building a home in a bushfire risk area

Home siting

There are a number of important things to consider when selecting a site for a home in a bushfire risk area.



Aspect

North to west facing slopes are more frequently subjected to bushfires, as that is generally where hotter and drier winds come from.

Slope

Fire travels faster uphill.

The fire preheats the fuels in its path more easily than on a flat surface.

Every 10 degrees the angle of a slope increase the spread of the fire doubles.

Homes on ridgetops and steep slopes are much more dangerous to shelter in during a bushfire than homes on gentle slopes or flat land.



Vegetation

Homes close to large areas of vegetation are more at risk.

For example, homes with large parks or forests to the north or west of them may be more at risk as fires commonly come from these directions.

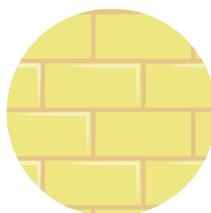
As the fire passes through the dense vegetation it intensifies before reaching the homes.

Home design

Flying embers can start small fires by becoming lodged in nooks and crannies – for example under loose roofing, a veranda or in sheltered recesses and doorways.

If left unnoticed, these fires can burn a home from the inside out.

When planning to build, consider the design and shape of your home.



Home shape

The safest homes have a smooth outside shape with no nooks or crannies and a low-pitched roof with no level changes.

Single storey homes are generally safer than multi-storey, as they offer less surface space for ember to be captured in.

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Building materials

Non-flammable wall materials, such as brick, mud brick, fibre cement sheeting and weatherboards are the safest options.

Be aware that rough timber and some other claddings can warp or catch fire.



Under floor spaces

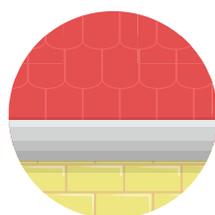
Homes on poles or stumps or with exposed decking or stairs can be firetraps.

Air turbulence and any flammable material under the house make it easier for fire to become established in the flooring.

The safest option is to construct the home on a concrete slab.

If poles or stumps are a necessary part of your house design, keep the floor as close to the ground as possible.

Enclose the underfloor space and ensure no flammable materials build up.



Roofing materials

There is no concrete evidence to prove that tiled roofs are less safe than metal roofs.

If you use tiles, however, they need to be well fitted with fire retardant sarking beneath them.

A low-profile roof reduces wind turbulence and minimises areas where leaves and debris can gather.

Strong winds can occur during fires, so make sure your roof can withstand them.

Roofing with timber shakes and timber shingles, as well as plywood or bituminous felt or thermoplastic, is not allowed in fire-prone areas.



Timber

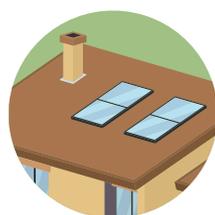
If possible, do not build elevated timber decking, stairs or a raised timber veranda.

If you do build verandas or deckings avoid rough sawn timber as it is quicker to catch alight than sanded options.

Timber can be safe if you use dense hardwoods like Jarrah.

For exposed rafters and external timber work ensure you smoothen or paint panels.

Don't use flammable coatings like tar or resinous compounds.



Skylights

Plastic skylights may melt and glass skylights may break, letting in the fire.

If you must have a skylight, install wire meshed glass or a fire-resistant cover.



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Access

Properties must have room for the safe movement of firefighting vehicles in the event of a fire.

Gateways should be at least **4m wide** and roadways should have a well-compacted surface, with gradients no greater than 1:3, and solid crossings over permanent waterways.

Turn around areas should be wide enough for large vehicles to easily manoeuvre.

Allow for a minimum turning circle of **25m in diameter**.



Water supply

Make sure there is sufficient water available from an independent source on your property for firefighting.

At minimum, a 5000L tank should be connected to a 5hp diesel or petrol pump with hoses long enough to reach around the house.

All exposed pipes should be of metal construction.



Vegetation and clearances

When designing where your home will sit within the site, take into account the local vegetation.

Asset Protection Zones should be considered – these are areas where highly flammable vegetation near the house is reduced or limited - and completed under the guidance of your local council or CFS Development Assessment officer.

Contact the CFS Building Assessment Service team on (08) 8115 3372 or email:

CFSDevelopmentAssessmentService@sa.gov.au

Seek horticultural advice when planning which plants can provide the garden shape and style you would like, without increasing the fuel load around your home.



Government
of South Australia

South Australian
Country Fire Service
cfs.sa.gov.au

Contact the Bushfire
Information Hotline
1800 362 361 (TTY 133 677)
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